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THE INJUDICIOUS USE OF INTRANASAL MEDICATION*

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NEW ORLEANS

I have always felt a little reluctant to speak at an allergy meeting for I am not, as most of you know, a "Simon pure" allergist, but rather profess to be an otorhinologist. It would take far more than ten minutes for me to tell you what I think, or rather what I do not think, of nose drops, but I shall attempt to keep within my time limit. I am not going to speak to you about osmosis, and Ph; that would take up all the time allotted me besides it can be found in many articles by Fabricant and others, but am going to limit myself to a few practical personal experiences and hope that from them you can get at least one point to think over.

Almost every day there comes to my office some patient with a completely stopped up nose. From the moment they begin to speak it is easy to tell that they have absolutely no nasal airway which is essential for good voice resonance. Their histories are usually very similar and date back to a cold or attack of hayfever several months before, but which failed to clear up in the usual period of time. Then they consulted first one physician then another, each giving relief for a while only to have the symptoms return. Often the story includes complete allergic skin testing and a history of repeated hypodermic medication over a varying length of time, but usually ends with the remark "and now I am using these drops, but they don't give me much relief any more, they used to keep my nose open when I used them three times a day, but now I use them every twenty minutes and can't breathe. I carry a bottle with me, have a bottle at my office, and keep another bottle under my pillow."

Intranasal examination of these cases reveals a mucosa that is devoid of color, swollen, pale, and edematous to the point that it is in apposition with the septum, with a thin, watery discharge, the nose blocked so tightly that even a tooth pick could not be passed through it. Use of an astringent usually brings the swelling down and reveals a septum that is fairly straight and not unduly thickened, turbinates that shrink to their normal size revealing no evidence of cyst formation, no polypi, and no pust indicative of sinus infection.

The keynote of the history is the fact that the blocking has occurred without any correlation to pollination, and that no purulent material is blown from the nose. Transillumination usually reveals antra and frontals completely clear to light. Occasionally, while their tissues are shrunken the antra can be easily and painlessly washed out through the natural ostia and the washings are almost always clear of purulent material.

Within a few moments after the astringent has been applied the patient is usually relieved in breathing, begins to lose his nervous tension and wants to know the name of the medicine used so he can get some to

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put into his nose. When you tell him you intend to keep his nose open without any drops he usually snickers and then looks at you as though he thought you were "off the beam", and says, "Well Doc I'll surely suffocate tonight." Then your ability as a salesman really comes into play. I explain to them that whereas his trouble may have begun as a cold, sinus attack, or hayfever, his original trouble has probably cleared up and he is now getting a reaction from too many drops. I try to impress upon him the fact that I could order a dozen different drops to open his nose, but for every bit he shrinks it today, will be followed by a compensatory swelling tomorrow. The second day he would have to us more drops, and the swelling would be worse on the third day, until a vicious circle sets in, whereby he has to use the drops to breathe, and the more drops he puts in, the more swelling he will have the next day. If he would refrain from putting anything into his nose for forty-eight hours, he would notice some improvement. At the end of a week he would be breathing on his own, and within two weeks it should feel almost like a new nose.

As long as the patient is moving about in the daytime he gets along pretty well, aided, if practical, by the application of hot towels across the bridge of the nose, cheekbones and forehead for about five minutes at a time, three or four times a day to increase circulation. But absolutely nothing is to be put into the nose, and it is wise to specify, "*no* drops, inhalators, douches, irrigations, or any intranasal medication whatsoever", for they are just as prone not to put any drops in, but to sniff on a benzedrine inhalator all day. The nights are worse then the days and they must be given a sedative for the first two or three nights. I insist on the sedation early, and request that it be taken about one-half hour before the evening meal, so that they will get full absorption from it, will be pleasantly relaxed, and can retire shortly after dinner and get some rest even though they do have to breathe through the mouth for the first two nights. In addition, I give a small dose of catarrhal vaccine combined with some nonspecific protein for its immediate reaction.

As soon as the reactionary swelling has subsided sufficiently to permit a thorough examination of the nose, it is made certain that there is no active sinus infection producing congestion of the turbinates. Often a deviated septum or a dislocated quadrangular cartilage acting as a bottle neck will be the causative factor in starting the patient on drops. Sometimes the middle turbinates will become cystic in character and grow to many times their normal size, blocking the entire upper half of the nose and causing constant dull headaches, at other times the nose will be blocked by nasal polypi. Frequently there is but one big polyp on either side. Other cases may show numerous polypi springing from one or both ethmoidal areas, which must be cleaned out at the first opportunity. How anyone can expect drops or vaccines, or the combination of them, to get rid of a polypi as big as the thumb, is beyond me and yet I have seen such cases, many, many times. The use of a snare will remove the growth in a few moments, and they are then returned to the allergist for follow up treatments in an effort to remove the underlying allergic factors. I always make an earnest effort to remove every bit of the polypoid material or "roots" as possible, although I have heard one of our prominent allergists state that he does not bother to clean them out so thoroughly but relies upon his extracts to cause a complete atrophy or disappearance. That has not been my personal experience.

The same applies for a badly deviated septum or enlarged middle turbinates. No amount of drops will cause any permanent reduction in size any more than drops would straighten a crooked leg or arm. The prolonged use of intranasal medication beyond the fifth and seventh day will cause a reactionary swelling to the drops used, not to mention the nervousness, irritability, and loss of sleep caused by medication that contains ephedrine or one of its allied salts. There should be more cooperation between

the allergist and rhinologist. The consulting of one with the other is no reflection upon the ability of either, and should be resorted to more frequently, to the benefit of all concerned. Also, the allergist should use his head mirror as often as his stethoscope and learn to differentiate between an allergic membrane and an inflamed membrane; the difference between a membrane irritated by chemicals and one due to pollinosis; whether obstruction is due to allergic reaction or mechanical blockage, such as foreign bodies, tumors, polypi, or bony malformations, before ordering any intranasal medication. After all, if we have faith in our vaccines, why rely at all on drops.

To me, ordering nose drops is cutting the knot, not untying it, or really correcting the condition. I very, very rarely, order drops of any kind, but when a patient does ask for them, that little still voice within me says, "Brother you have failed". If you had corrected his underlying pathology he would not want them in the first place, and nothing is more pitiful than the patient who has become addicted to drops with cocaine. Surely they must make the patient feel like he owns the world for a while, but their prolonged use will certainly tell on his health in time to come.

Lastly, I should call to your attention the number of cases of impaired hearing resulting from drops getting into the eustachian tubes. We get a third of our hearing through the nose, via the eustachian tubes. Just one drop of medication can block an eustachian orifice and make us feel like the "head is in a barrel", but to add to our troubles the drops irritate the mucosa calling forth a pale, watery secretion, the membranes swell until no drainage is possible, the fluid, usually sterile increases until the middle ear becomes filled. Often the patient will tell you the only way he can get relief is when he puts his head down as though to tie his shoe. This permits the fluid to run up into the attic away from the drum. Examination of the drum shows no inflammation, a fair light reflex, but usually a glazed or camphor appearance of the drumhead. On catheterization of the eustachian tubes a crackling of the fluid can be heard. We have developed small suction tubes which can be placed through a catheter into the eustachian tube or middle ear and the drops or fluid removed, but in other cases the exudate is so great that paracentesis with aspiration of fluid is necessary to permit the ear to become dry and healthy again. Under sterile precautions this is neither painful nor harmful and the drum has always healed over again, in fact too quickly, usually within forty-eight to seventy-two hours. I believe we could get a better result and quicker cure if the drum would stay open longer and permit better drainage.

Until Hasiltine, Fabricant, Proetz, and others called attention to the physiology of the nasal mucosa, stronger and stronger medications were used. Now however, the reputable manufacturers are trying to bring out a drop as nearly devoid of secondary reaction as possible, although the optimum has not been reached.

The newer antibotics are wonderful for infections. In my own office practice, we make up most of our solutions without combining an astringent, for in most cases it is the astringent and not the antibiotic that gives the secondary swelling, though I realize that many antibiotics do give allergic manifestations, which time will not permit discussing. I believe this summer will see the use of many of the recently developed antihistiminic drugs in the form of nose drops, probably more helpful and less irritating than anything that has been used in the past, but again, I feel that their *prolonged* or *too frequent* use will cause the mucosa to swell and block and bring on a chain of symptoms similar to the conditions which they are intended to relieve.

So in closing, let me say, that if you must use nose drops win the patient's coperation to use them as little as possible, and he will learn to love you for it.

Just because the nose is the only ostium in the body without a natural sphincter is no reason why we should be forever ravishing it by poking all sorts of things into it.

DISCUSSION

Dr. Stanley Cohen (New Orleans): Dr. McComiskey, I want to thank you for that delightful paper which has pointed out to us the frequency of improper therapy in vasomotor rhinitis.

The type of rhinitis which is most likely to produce obstruction, and it is obstruction, for which most nose drops are prescribed, is a very interesting type of vasomotor rhinitis. These people usually complain of obstruction, have a minimum of sneezing and nasal itching, have negative skin tests and, remarkably enough, show an exceedingly high incidence of psychosomatic complaints. They react poorly to nasal medication and immunilogical therapy. They all present a most unusual psychiatric picture. In addition to havng obstruction, 90 per cent complain of fatigue of a neurotic nature, depression, and they lack drive and energy output. Johnny Mitchel in Columbus, Ohio, has compared a large series of these patients with another group having allergic rhinitis. The former fall into a group of patients with a high incidence of multiple neurotic complaints. They may or may not have eosinophiles in their nasal secretion. They have the proclivity par excellence to produce nasal polyps. I am convinced that a proper approach to the treatment of vasomotor rhinitis manifested by obstruction with a minimum of sneezing and itching is not with the use of nose drops. My experience indicates that this type of vasomotor rhinitis is actually the somatic part of a psychosomatic disease.

Dr. J. Dudley Youman (Shreveport, La.): The interesting point the doctor brought out was the fatigue he notices in his patients. Many eosinophiles were found in the nasal secretion and I wonder if there's an underlying food allergy. Randolph has done much work on fatigue due to allergy. Many of his patients have gone from doctor to doctor and have been classified as psychoneurotics and have gotten no relief. According to him, with his individual food tests, he has been able to reproduce the reactions of fatigue in his office.

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THE MANAGEMENT OF NASAL INJURIES

RALPH H. RIGGS, M. D.

SHREVEPORT

The work and teaching of the Fomon Group has been directly and indirectly responsible for most of the enthusiasm in the past few years concerning this subject. Textbooks as late as 1945 mention the treatment of nasal injuries in less than one page of print. Certainly, since we now have a better understanding of the anatomy and physiology of the nose, it behooves all of us to get better results both from the standpoint of function and cosmesis.

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Unfortunately, nasal injuries do not always receive the attention they merit. The simple types are apt to be treated as trivialities at the time of the accident, or may be entirely overlooked, while the more complicated ones, not infrequently being accompanied by more serious injuries, are necessarily neglected because of more urgent claims of the associated conditions. Improper management often results in serious consequences. In addition to producing deformity, they may lead to obstruction of the airways, and in the case of children, may interfere with the normal development of the nasal framework. If a deformity in a child is a definite menace to health or is having a bad psychological effect, corrective measures should not be delayed; otherwise, it is better to await the full development of the nose (approximately the seventeenth year).

ANATOMY

As you know, the nose is composed of a framework and a covering. The framework consists of the nasal bones, the septum (cartilage and bone), the upper lateral cartilages (which are really an extension of the septal cartilage), and the lower lateral cartilages. The medial crura of the latter cartilages help form the columella. The membranous septum is the area between the columella and caudal end of the cartilaginous septum.

The interior of the nose is covered with mucous membrane except in the vestibule, where skin is found. The covering externally is skin with very little subcutaneous tissue.

The blood and nerve supplies will not be dealt with in detail, except to state that they are very generous.

PHYSIOLOGY

Books have been written dealing with its function. I will limit my discussion to the

mechanism of air currents and their physiological importance.

Proetz has described the inspiratory current as a parabolic curve, the nares being dependent, and the piriform opening being at a somewhat higher level. The air current goes upward, backward and then downward to emerge through the posterior openings. Normally the anterior opening is slightly smaller than the posterior one and thereby a negative pressure of approximately 6 mm. of water is produced on inspiration and a positive pressure of approximately 6 mm. of water on expiration.

LEGENDS

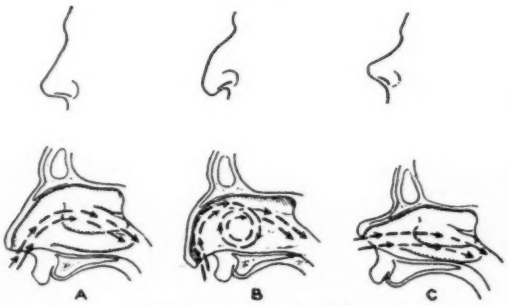

Fig. 1. Inspiratory current: (a), normal parabolic curve. (b), impingement of the inspiratory current on the dorsum and formation of eddies in the case of the dependent tip. (c) flattening of the arch and more direct course of the current in the case of unduly elevated nares.

Proetz also states that as long as the ostia of the sinuses are at all patent, the pressures changes in the sinuses are identical with those in the nose. An abnormal nose may, therefore, interfere with drainage of the sinuses and its consequences. All portions of the nasal fossa should be accessible to the air currents and in a proper proportion. Without this we may have a chain of symptoms marked by anosmia, headaches, metaplasia, and infection.

The position of the upper and lower lateral cartilages in relation to the nasal septum plays a very important role in producing the normal direction of air currents. They normally help regulate the size of the piriform opening which in turn admits the necessary amount of air into the nasal cavity.

TYPES AND MECHANISM OF NASAL INJURIES

The exposed position of the structures forming the nasal pyramid renders them more subject to traumatism than other parts of the face. Injuries may involve any and all of the elements of the pyramid. There may be fractures of all degrees: greenstick, displaced, comminuted, overriding or compounded.

Nasal injuries and fractures almost invariably result from direct violence. Their character and extent will depend for the most part upon the angle at which the force was applied, the amount of trauma, and the size and shape of the traumatizing agent. Injuries may occur from either side, from in front, above, or from below.

The nasal septum, due to its position, is practically always involved in any malposition of the external parts. If the trauma is over the cartilaginous framework the septum may be fractured, with comminution, impaction, and overlapping of its fragments. Frequently, the caudal end of the cartilaginous septum becomes dislocated and appears in the nostril as a free cartilaginous ridge covered with mucous membrane.

DIAGNOSIS

A history of a blow on the nose, accompanied by a sense of the nose giving away, and associated with nosebleed, ecchymosis about the eyes, pain, and swelling, is presumptive of a nasal injury and fracture.

If seen early, diagnosis may be made at a glance, but later swelling may mask a deformity. Incidentally, care must be taken to avoid mistaking a pre-existing deformity for a recent fracture or injury.

Diagnosis should be made by palpation externally, inspection (both external and internal), and by x-ray. The x-ray film is of utmost importance, since nasal injuries may become a matter of litigation. Plates before and after treatment are advisable.

REPAIR OF NASAL INJURIES

The reduction of nasal fractures can be accomplished under either local or general anesthesia. Local anesthesia is obtained by packing the nasal fossa with 10 per cent cocaine with equal parts of adrenalin, or 2

per cent pontocain with adrenalin. Infiltration with monocaine beneath the skin to the infratrochlear and external nasal nerves renders the parts insensible to pain. Intratracheal anesthesia is probably better if a general anesthetic is used.

Injuries of the soft parts usually present no special problem and are treated in a manner similar to wounds elsewhere. The management depends upon the character of the wound, the likelihood of contamination, and the time elapsed since the injury. The control of hemorrhage is the first consideration. This can usually be accomplished by intranasal packing and by pressure externally. Antitetanic serum should be given if there is any doubt as to soil contamination.

Following hemostasis the skin wound is thoroughly cleansed with soap and water. Naturally any foreign body, such as dirt, should be removed. Bony fragments should not be removed, as they seldom undergo sequestration due to the good blood supply of the nose. Displaced or even detached soft tissues should be carefully cleansed, returned to their normal location, and sutured in place. In cases of through and through wounds opening into the nasal cavity, the mucous membrane and perichondrium require separate approximation.

In cases of injury to the hard parts, the displaced fragments should be restored to their normal relations as soon as possible. However, if the patient does not come under observation until marked edema and ecchymosis have already occurred, it is advisable to wait three to four days for the swelling to subside. Cold compresses often hasten the process. In no event, if good results are expected, should reduction of the fractured bones be delayed for more than a week, since after this period preliminary ossification will have taken place.

If the nasal pyramid is displaced to one side and the fragments are not impacted, the nose can be forced into midline by direct pressure with a gauze-covered thumb on the convex side. However, if there is an impaction, it must be forcibly released before reduction can be accomplished. A very good instrument for this is the Walsham forceps. It is made so that only the tips meet. It is possible to use other forceps, such as the Kelly. Be sure they are well padded so as to prevent any damage to the soft parts.

Depressed fractures may be elevated by placing a blunt instrument into the nostril beneath the displaced fragment. Externally the hand should help guide the nasal bone to its normal position.

If the nasal arch is merely spread it may be elevated and the bones repositioned by direct pressure with gauze-covered thumbs on both sides of the nose.

Comminuted fractures require reduction of each fragment. This is accomplished by instrumentation internally and gentle digital pressure externally.

The nasal bones are not subject to muscular displacement when fractured, and after reduction remain in position unless comminuted. Theoretically, no packing or splinting is required, but practically it should be done for at least forty-eight hours. In the case of comminuted fractures, immobilization should be both internal and external. In some cases it will be found necessary to pass a through-and-through mattress suture of fine wire or silkworm gut through the whole thickness of the nose to reduce the spread of the nasal bridge. Many mechanical splints have been invented, but only in the very unusual and rare case need they be used.

The repair of the cartilaginous structures and nasal septum is by far the most neglected part of nasal injuries. As stated before, the septum may be dislocated, either along the floor or caudally; it may have a fracture (simple, comminuted or compound).

The septum should be put back in its normal physiological position. Frequently this is possible using the Walsham type forceps, but there are cases in which it cannot be properly reduced. In these cases where we cannot put the septum in its normal position, a reconstruction of the nasal septum should be done at once, unless there

are such contraindications as shock or danger to life from other causes.

If the septum is neglected we find that not only will the patient be unable to breathe satisfactorily, but that we have a greater difficulty in keeping the reduced nasal bones in their proper alignment. Therefore, it is necessary to put all parts in their respective normal position if we hope to get a physiologically normal nose. The same principle applies to old unreduced nasal fractures.

In recent years much has been written about surgery of this type of case under the name of rhinoplasty. This does not mean cosmetic surgery, but most frequently refers to the reduction of an old fracture of the nose and/or septum.

Fomon has taught us that the complete septum can be removed, and that by replacing it, or parts of it, between the septal flaps we minimize the danger of a sagging dorsum. Freer expressed this same view in 1902. With the new concept of the septum we now feel safe in doing a combined rhinoplasty and septum operation (preferably a reconstruction of the nasal septum).

Fig. 2. Hump removed. Nose shortened.

The reconstruction operation used by the author was described by Cottle. It has been my experience that one can do a conservative or extensive submucous resection of the nasal septum with the following assurances:

1. Minimal injury to the mucosa—most frequently none at all.

Fig. 3. Septum reconstructed. Nose shortened. Graft put in dorsum.

Fig. 4. Combined reconstruction of septum and rhinoplasty. Basal view shows obstructing septum.

2. Bone and cartilage may be replaced and the rigidity of the septum restored with ease.

Fig. 5. Old football injury. Bony parts shifted to left. Tip narrowed. Patient had septum operation previous to this injury.

Fig. 6. Combined hump removal and reconstruction of nasal septum. Basal view shows obstructing septum.

3. Sagging of the cartilaginous vault may be prevented, and even corrected if present.

4. Wide and ample exposure may be used making assistance available.

5. This operation can be used in both recent or old injuries with equal success.

6. It can be used in combination with rhinoplasty or rhinoplastic procedures.

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DISCUSSION

Dr. F. E. LeJeune (New Orleans): I not only enjoyed hearing Dr. Riggs' presentation, but I am most happy to see that a rhinologist is now doing rhinoplasties instead of referring them to the plastic surgeon, as we have done in the past. Through the teaching of Dr. Fomon and his group, fundamental nasal surgery will encourage more and more rhinologists to do this type of work where it really belongs. Much work is being taken from us by the tremendous development in medicine, and I think we ought to prepare young men to do rhinoplastic surgery such as Dr. Riggs has outlined. Besides this, a rhinologist is in a better position to appreciate the physiological function of the nasal membranes and, therefore, respects them greatly. Dr. Riggs is to be complimented for doing this very nice type of work.

Dr. Frank L. Bryant (Shreveport): I'd like to add that the septum operation and the rhinoplasty can be done at one procedure. Some men feel that the septum procedure should be done first and the straightening of the nose should be a later procedure. I think under competent hands both of these conditions can be and should be combined. It is much easier on the patient and gives a better postoperative result.

Dr. Hartwig M. Adler (New Orleans): I'd like to ask what do you do to the comminuted fractures, because of the need of support? How do you support it?

Dr. Riggs: Dr. Adler, in answer to your question about support: I may get in trouble doing it sometime, but in comminuted fractures of the bone over the septum, we think we can treat in splints, the same splints as in rhinoplasty and the use of adhesive.

Dr. Adler: You make your mold for that particular case?

Dr. Riggs: That's right; we have our hot water and make the mold and shape it to the nose.

Dr. Adler: You put a kind of butterfly effect?

Dr. Riggs: That is what they were doing when

I was up there two years ago. They are not doing as much of that now. Now they are placing the stent down to just below the junction of the upper lateral cartilages and nasal bone and not having it all the way on the cheek. It is left on for about one week.

Dr. Adler: During my first year of residency, when I was taking accident room calls every third day, I got to treat a number of broken noses. I tried to splint them with plaster of Paris, but it wasn't until a woman artist from the French Quarter, who happened to come in as a patient, and, who knew how to handle plaster of Paris, showed me how to use plaster of Paris that I was successful in making a satisfactory nasal splint with it.

Dr. Riggs: The one used by Dr. Fomon is made in England and most of the surgical supply houses are stocking it.

Dr. L. W. Alexander (New Orleans): I would like to say that all of the plastic procedures of that type should be done by the otorhinolaryngologist, as was brought out. It is most important. Most of the plastic surgeons who have operated on some of my patients have absolutely no regard for the physiology of the nose. I think that is the important thing in this paper.

BRONCHIAL ASTHMA IN CHILDHOOD*

J. DUDLEY YOUMAN, M. D.

SHREVEPORT

Generally speaking, we see two types of asthma in children. The typically allergic type, with positive skin tests that are of clinical significance, in which the symptoms and treatment follow that of extrinsic asthma in the adult, we do not see many cases that fall into this classification. The other type, which makes up by far the bulk of the young asthmatics seen by us, is best classified as mixed allergic and infective. These cases have usually been under the care of the pediatrician or general practitioner and have been diagnosed as asthmatic bronchitis.

I am particularly interested in this latter group of young asthmatics, because I think their problem is not completely understood, and I believe with proper treatment much can be done to alleviate their immediate trouble and prevent or lessen trouble in later life.

These children often have a history of allergy in infancy in the form of excessive spitting of food, much colic, unexplained diarrhea, and intolerance to certain foods. These symptoms have brought about frequent changes in the child's formula. Finally, at about three months of age, they begin to straighten out more or less spontaneously. They may or may not give a history of infantile eczema. There is a positive family history of allergy in a high percentage of these cases.

At two to four years of age, blockage of the nose is noticed, with a watery discharge which changes to mucopus with colds. The secretion may be profuse or scanty. Short bouts of sneezing occur in some, but it is not a dominant symptom. They are mouth breathers and they snort, snore, and make noises when sleeping. They rub and pick at the nose. They are usually worse in the morning and at night, clearing partly to completely in several hours after arising. They can almost predict the weather as they get worse as the humidity increases and with a sudden change in temperature, particularly a sudden change to a cold damp day.

They do very well in the summer but have trouble in the spring when the weather and temperature are so changeable, and to a little less extent when winter finally sets in.

As time passes they get worse with each fall, winter, and spring, and from then on, or by the time they reach preschool age and the first few years in school, the mother complains of an accentuation of nasal symptoms with he development of one cold after another which goes from the nose, whose secretions at that time take on characteristics of a cold, to the chest, with a low grade fever that may go to 103° to 104°F. They develop a cough, wheezing and difficult breathing which is asthmatic in type with numerous moist and musical rales over the chest in the next twelve to forty-eight hours.

Epinephrine will improve the asthmatic breathing somewhat for a short time, but will not give nearly as complete and prompt

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relief as in the child with extrinsic asthma.

In a few days to a week, they gradually improve, returning to the stage of perennial rhinitis. One, two, or three weeks later there is a recurrence of the asthmatic bronchitis, and so it goes, resulting in the child being able to attend school only about half the time. They feel badly, lose weight, are pepless, cross and listless, or have an excessive amount of nervous energy with easy fatigue. The appetite is poor, they are usually anemic, and between the acute spells many have a brassy cough which drives the parents frantic because of the constancy and frequency of the loud rasping sound throughout the day and night.

The blood count varies with the stage in which it is taken. Usually there is a leukocytosis, and no eosinophiles or a slight increase in the eosinophiles during the acute stage, and a normal total white count with an increase in eosinophiles of from 4 to 15 per cent between attacks. The nasal secretions usually show an eosinophilia between attacks to become purulent during the acute phase.

The type of skin tests done (passive, transfer, scratch, or intradermal, depending upon the age and cooperation of the child), is often disappointingly negative. The detailed history is much more valuable than the skin tests in getting food and inhalant leads which prove to be clinically significant.

Because of the lack of positive food tests, elimination of individual foods is tried, and if not successful, the child is put on elimination diets for short periods of time. At times, we find a few foods that are causing trouble but very often no foods can be incriminated at all. Such clinical trial food testing in these individuals is difficult because frequent secondary infections, weather and temperature changes make conclusions hard to reach, and many suspicious foods, on repeated elimination and trial, prove to be nonallergic in nature.

The inhalant tests are more revealing and many of these children are house dust sensitive, although there is a significant group who give negative tests to scratch Endo dust. Many are sensitive to feathers and some to animal danders, pollens, mold, and other environmental allergens. A few are negative all the way through.

It is my opinion that these cases represent a perennial rhinitis with subclinical allergic asthma. Secondary catarrhal infection recurrently occurs in a fertile field, —the partially blocked nose,—with resulting acute sinusitis and bronchitis which is enough to make the asthma clinically manifest. As the infection clears, the allergic balance is re-established and the asthma disappears, except, very often, for the troublesome cough which persists for a shorter or longer time. The patient returns to his uncomplicated perennnial rhinitis again to repeat the same cycle in a few weeks.

Before they come in for allergic survey, all of these patients have been under treatment for months or years without the desired results. They have had the infection treated at each acute episode, and the allergy has been ignored. To get results, it is essential to treat the allergy and at the same time do as much in a prophylactic manner to prevent respiratory infections as our knowledge now permits. When the extrinsic allergens have been removed, many of the children can have colds without asthma and the colds are usually milder. But it is just as important to try to prevent respiratory infections as it is to get the allergy in hand if best results are to be obtained.

In treatment, full instructions are given for the strict and as nearly complete as possible elimination of the suspected environmental allergens. Hyposensitization is carried out with the positive inhalant reactors and all patients are given a stock vaccine.

In addition, chilling is to be avoided and the room temperature is kept at 70° F. at night with ventilation from an adjoining room. These children should be properly dressed to avoid exposure and protect them from the weather.

Small doses of sulfadiazine or sulfathiazole, or penicillin, are given daily through-

out the bad months, and with the onset of an acute attack the doses are increased and penicillin by inhalation or by injection is given, if needed. At times, the respiratory infection can thus be aborted, and nearly always made much milder.

The question is frequently asked if the use of penicillin in this way will not cause penicillin resistance. I have not found it to occur. Fink,[1] who has used a great deal of penicillin over long periods of time to prevent chronic bronchitis and bronchiectasis found none of his cases become penicillin resistant.

At Bowen's[2] suggestion, gamma globulin in 4 to 6 cc. doses every six weeks, subcutaneously, with 1/20 cc., intradermally, given once weekly is being used to control respiratory infection. We have not used it long enough to have an opinion as to its value.

Any food to which the child is found allergic is eliminated, but since we find food does not cause much trouble in this type of asthma, our patients are always on good well rounded diets. We believe this is one of the essential parts of treatment, because most of these children are thin, listless and anemic, and we have found that they improve better when properly fed than on greatly restricted diets. For that reason, we usually get the inhalant and infectious angle in hand first and get the general health of the child improved before too strict a dietary regime is tried. Then, the trial elimination diets are limited to short periods of a week or ten days.

The further I study these cases, the more I agree with Hill[3] who says, "That food can cause asthma in children is a fact beyond dispute. The frequency of this sensitivity as well as its relative importance to recurrent respiratory infection, sensitization to pollens and other environmental allergens is an entirely different question, concerning which there is considerable difference of opinion." In his series of 100 asthmatic children in whom he was trying to evaluate the importance of foods as a cause of the asthma, 20 per cent of his positive food tests were clinically significant, 8 per cent of his positives were caused by other allergies unrelated to the asthma, and 72 per cent of the positive food skin tests were of no present clinical significance.

An iron and vitamin tonic that contains amino acids is also used as well as the antihistaminics for the nose. Anti-asthmatic drugs, such as epinephrine, aminophyllin, theoglycinate, and ephedrine, are used as indicated. Syrup of ipecac has been used by Ratner,[4] Glaser,[5] and others in childhood asthma and they find it very efficacious, especially in those who fail to respond to epinephrine. The vomiting and retching, according to Ratner, produces a reverse peristalsis in the bronchi and trachea and the tenacious mucus plugs, and thick mucus are literally "vomited" from the respiratory tree, giving relief when other drugs fail.

We try to make the regime as simple as possible, and in this way, get better cooperation from the children and parents. When the child improves, we try to get him to live as nearly a normal life as possible. Overrestricting can easily make hypochondriacs of these youngsters. I feel as Pratt[6] does that "I would rather see the child with an occasional mild asthmatic attack than the same child free from asthma but a pampered invalid. Except in asthma of extreme severity, overprotection must be carefully avoided."

Tonsillectomy is contraindicated[6-8] in the treatment of asthma. If the usual indications for the removal of tonsils and adenoids are present, the operation should, of course, be done. Asthma is definitely not one of the indications.

Fink[1] finds it to be the rule rather than the exception to find chronic bronchitis of more or less severe character in one or more relatives of children affected with recurrent attacks of tracheo-bronchitis and pneumonia. He found this to be the initiator of chronic pulmonary disease in children under two years of age in at least 70 per cent of the cases. Attempts are made to clear such infections or protect these children from them and they are kept away from persons with acute respiratory infections. This is extremely difficult to do with

chilren going to school, so it is our job to make them able to withstand these exposures better than previously.

The prognosis is good in these cases over the long pull when both the allergy and infection are treated concomitantly. Treatment of the allergy cuts down on the number and severity of the infections, and constant prophylactic measures against infection add to the results. However, as Urbach[9] states, the prognosis has not been thoroughly evaluated. He cites Brock's study of 350 cases. Brock noted a tendency of childhood asthma to improve after the age of ten years with spontaneous recovery at the time of puberty in about one-third of his cases and improvement in a total of 80 per cent . However, in commenting on Brock's statement, Urbach[9] feels that more prolonged observations would reveal a recurrence of the same or other allergic states. In our present state of knowledge when so much can be done for these youngsters, I believe it is a foolish, outmoded, and hazardous attitude to take, that these children will outgrow their asthma. Even if they do, such an attitude inflicts on these children years of relative invalidism, which are unnecessary and unfair to the child. It will, also, leave a certain percentage with irreversible permanent changes in their nose and lungs which they will have trouble from throughout the rest of their lives.

Hurst quoted in Urbach's[9] book gives us a note of optimism. To quote Hurst: "every asthmatic can derive much benefit from good advice. He can be taught a way of life: how to avoid the exciting cause of his particular brand of asthma, and above all, how to be happy in spite of the bad luck of having been born with the asthma diathesis."

We usually tell the parents that we rarely can give them an entirely symptom free child, but that the child will have fewer and much milder attacks; that his general health and disposition will improve; he will gain weight, have vigor and will not tire so easily; and that the appetite will improve. Also, that they will soon begin to live and play, with average precautions, like any normal child with a minimal amount of trouble. They are also told not to expect miracles, that results take time, weeks, and months, and that for maximum permanent relief regular treatment must be continued, often for several years.

One gets a great satisfaction out of treatment of these patients when one sees the child bloom forth after a few months of treatment. The parents, after long months of worry, begin to live normally again as the child improves and are very appreciative, even at times with results that the allergist would not consider the best. The child is better, and the mother and father are grateful.

SUMMARY AND CONCLUSIONS

Asthma of the mixed allergic and infective type, often called asthmatic bronchitis, is discussed. These children seem to have one cold after another in the fall, winter, and spring with recurrent attacks of asthma. There is usually a history of previous other allergic diseases in the child and a high percentage give a family history of allergy.

Their response to antiasthmatic drugs is partial, incomplete, and temporary, contrary to what is found in uncomplicated extrinsic asthma.

The skin tests are important, especially from the point of view of inhalants. Some foods, usually very few, can be shown by strict clinical trial to be of etiologic significance, and this is fortunate as it is essential that these children have a good well balanced diet.

It is our opinion that these cases represent a perennnial rhinitis with subclinical allergic asthma. Secondary catarrhal infection recurrently occurs in a fertile field, the partially blocked nose, with resulting acute sinusitis and bronchitis which is sufficient to make the asthma clinically manifest. As the infection clears, the allergic balance is re-established and the asthma disappears. Again, the perennial rhinitis becomes manifest. This cycle repeats itself every few weeks throughout the fall, winter, and spring making these children almost semi-invalids.

The cause for failure in treatment is that only the infection or only the allergy has been treated. Best results are obtained when the allergic angle is gotten under control, and at the same time, constant measures are used prophylactically against respiratory infections. Each acute respiratory infection should be treated vigorously in an attempt to either abort it or lessen its severity.

The prognosis is usually good. The parents are told to expect no miracles; that the results take time, weeks, and months; and that for maximum permanent relief regular treatment must be continued often for several years.

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DISCUSSION

Dr. N. K. Edrington (New Orleans): I believe that the average allergist in the management of the allergic child, has a tendency to place too much importance on the restriction of the child's activities. Sports, such as swimming, baseball, etc., should be encouraged in moderation. The child should not be made to feel that he is abnormal, as this creates in his mind a psychological state which does more harm than good.

I have in mind one of my patients who has suffered from bronchial asthma since childhood. He is now a big strapping fellow about six feet tall and weighs about 195 pounds and is a picture of health. He is an only son of a mother who pampers him a great deal and her attitude has created in this boy's mind the belief that he is, as the result of his allergy, below par in health and different than his associates. Since childhood his mother has impressed him with the importance of living a quiet and restricted life. For many years he has consulted and been under treatment by many allergists with very little change in his symptoms. Recently he enlisted in the U. S. Army Reserve Corps and has joined the New Orleans Athletic Club where he daily takes part in various strenuous exercises including weight lifting. None of these activities has increased his symptoms. If anything, he seems to be better; however almost every day on returning home in the evening and anticipating the questioning by his mother as to his whereabouts and activities during the day he has mild attacks of asthma.

Dr. Narcisse Thiberge (New Orleans): I think Dr. Edrington has brought out two good points about the psychic element and about the liver function. I think the antibodies are pretty well developed in the normal function of the liver and if the liver isn't functioning adequately, we don't get any result.

The next point, which I should have said first, is that Dr. Youman ought to be complimented on the work he has done. I have known Dr. Youman for a long time and I know he has had some personal interest in allergy and consequently has perfected himself on that subject. He has done excellent work and given an excellent paper.

I want to emphasize the gastrointestinal allergy part. We overlook both this and the liver function. I get very good results from a combination of ammonium chloride and ephedrine and sometimes I add a little barbiturate. I don't bother the children with too many injections. I have them report at long intervals. I am satisfied with the results.

I have been doing this work in allergy since 1916 and am able to follow cases over a long period and consequently give a good summary of the cases I have followed through. The enthusiasm for a good many of the new drugs comes and goes, and I have come to this conclusion about the antihistaminic drugs. It's not so much the drug you use, it's the dose you use and the personal enthusiasm you throw into the work that brings the result.

We have the normal cycle of allergic diseases: eczema in childhood, asthma in adolescence, hay fever in the adult, and then the terminal stage is asthma.

Another thing I use for the children is a little respirator, fashioned like the benzedrine inhaler, for penicillin. Good results are obtained from the penicillin. Penicillin, I think, has some effect upon the allergic processes. One precaution must be observed in using the inhaler. If the child blows back into the inhaler the moisture from the breath will clog the penicillin. This is shown by good results at the first application which are not maintained because moisture has been introduced into the apparatus. It's just a little portable thing that the children carry around and they can be taught to use it at an early age.

Another thing too, psychic or not, I think it goes in line with Dr. Edrington's experience about sending his patient to the bowling alley, I had a child who had asthma and the only cure was for the father to put the child in his auto and ride him

around the city. Whether it was the change or something else, the spell was broken.

Dr. H. G. Ogden (New Orleans): The saying goes among pediatricians that you have to treat the mother as well as the child. There's the mother with only one child who will come to the office and magnify the symptoms and that child is going to have an emotional factor. They get a little pampered and I think in evaluating the symptoms, we have to take those things into consideration.

Another point is that people and even doctors say the child will outgrow the asthma. I treated a woman seventy-seven years old, waiting all her life to outgrow her asthma. She was allergic to house dust.

The American Academy of Allergy is going to come out with some press releases which are being worked on now. They will try to explain some of the misconceptions to the public and this will be given to the Associated Press, and the United Press, because these fallacies are very injurious to the practice of allergy.

Dr. Sam Zurick (New Orleans): I enjoyed your paper very much, Dr. Youman, and I feel like an illegitimate offspring at a family gathering in commenting thus. I take a contrary point of view to one of your statements, namely the contra advisability of tonsillectomy in asthmatic bronchitis. I think most of those individuals have asthmatic bronchitis as a result of an infection. I feel the focus of infection is quite frequently in the nose and nasopharynx. One of the primary functions in relief of asthmatic bronchitis is in the removal of the adenoids. The tonsils also act as a primary focus of infection, but I believe the adenoids are most important since they receive the drainage of the nose and sinus, and should be removed in case of asthmatic bronchitis. One more occasion of that is your statement that you do use a stock vaccine.

Dr. Youman (In conclusion): I want to thank the discussors for their kindnesses to me.

Dr. Zurick, I think it was my idea that tonsillectomy should not be done for asthma. If you have infection in the tonsils and adenoids I think they ought to come out but it has been my impression and also of Moore, Stouser and Pratt that some of the children after the tonsils have been removed, begin with or have worse asthma. Many of the children who have the tonsils and the adenoids removed and the allergy not gotten in hand, have a regrowth of the adenoid tissue in the nasopharynx and tonsillar region.

As far as penicillin sensitivity, I haven't seen any in the children I have had on penicillin. I have seen lots of penicillin sensitivity because I do both dermatology and allergy. Most of the penicillin sensitivity has been in adults. I have seen very little in children.

Dr. Ogden brings up the use of radium and x-ray in these individuals. I would rather have him talk on that. I have used it some, but not enough to be able to express an opinion on it. I have used it on cases where there's some deafness from the blockage of the eustachian tube with gratifying results. However, sometimes, after years have passed, the trouble has recurred.

Dr. Ogden: I might say one word about radium and x-ray. You know Dr. Gay and some of the group worked on it. I heard Victor Cohen in his talk on the use of radium in asthmatic children and he found that a large percentage had temporary relief of asthma.

I talked to Dr. Cohen and he is working on x-ray treatment for this type of child and there's a particular method of giving x-ray worked out in Buffalo. If you are interested I have the name of the technic and I have his methods. I haven't used it, but if you are interested I will be glad to give it to you.

THE SHORTAGE OF RURAL DOCTORS

A CONSIDERATION OF CAUSE AND CURE*

J. P. SANDERS, M. D.**

SHREVEPORT

In short, the cause of the scarcity of doctors in the rural areas may be laid to three factors: overspecialization, rapid transportation, and lack of local interest.

OVERSPECIALIZATION

We are living in an age of specialists. On almost every side we see businesses, trades, professions, and all kinds of human enterprises, carried on more or less according to some specialty regime. An automobile mechanic is not a general mechanic, but is a specialist on carburetors, on motors, on electrical systems, or is a body man. Stores deal in special types of foods or clothing. This tendency all over the country is so pronounced that we more or less accept it, and it is probably a good thing.

Medicine is no exception to this rule. For the past twenty-five years there has been a definite tendency for medical schools to stress specialization to their stu-

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dents. Medicine is taught as a specialty rather than as an integrated whole. The teachers themselves are practically all specialists. There are only two or three schools in the country that have a department of general practice. Some of the schools go so far as to eliminate general practice and general practitioners from their hospital staffs entirely. My own alma mater, the University of Texas, does not have a general practitioner on its staff. The teaching hospital, John Sealey Hospital, is closed to all general practitioners.

Other hospitals are concentrating on training specialists. Residencies are offered in surgery, pediatrics, obstetrics and gynecology, and particular efforts are made to get these recognized by the American Specialty Boards. A situation has developed in which the student, from the time he enters medical school until he finishes his postgraduate training, is filled with the theory that specialization is the only thing to do. Some of the teachers go so far as to tell their students that general practice is a thing of the past and there will not be a place for a general practitioner in the near future.

Another factor that has influenced overspecialization has been that of income. In the year of 1947 (obviously a very good year) the general practitioners over the country averaged $9,300, the part-time specialists received $11,200 per year, while the full-time specialists had an income of about $14,500. Thus the specialists made $5,000, which was a 50 per cent greater income than the general practitioner. On the whole his hours were shorter, his practice more regular, and in general, the specialist was better off. He had more time for reading, more time for postgraduate study and a larger amount of time to spend with his family and for recreation.

As medicine advanced the effort to keep up with medical progress became more and more difficult because each specialty made such rapid strides; new journals were developed; the number of drugs increased and there was an increased usage of these drugs; new technics for diagnosis and treatment were developed. Consequently, the general practitioners found it almost impossible to keep up in all branches of medicine, but found it simpler to keep up in only one field, and there again was the tendency to specialize.

Then, the patients themselves began to demand specialists' care. This was true whether or not the specialist was needed, whether or not the patient could pay, or whether or not the specialist was available. I have had patients who never paid one dime for medical care, but insisted on a specialist being called in for almost any kind of disease.

Patients who could afford it frequently left their own family doctors, who were perfectly able to take care of them, and went to large named clinics, which, of course, increased the cost of medical care. They not only had the expense of the high priced clinic, but the cost of transportation, hotel bills, and other expenses. This situation still exists. Patients still search out doctors with big names. They pass by their local physicians, who in most cases are clearly capable of taking care of their illnesses. They go to the specialist either in the nearby, or in the far away urban center because of the big name. They use the home doctor or the family physician for simple emergencies and for night calls. In other words, the patients themselves by their own acts, made the general practitioner the "whiping boy" of medicine. He may be just as well trained, and in many cases much more competent. But, because of his nature and temperament, he decides to stay in general practice rather than to specialize, and he is made the "goat" of medicine. Thus the patients in general forced many good general practitioners to enter the specialty fields and thereby increased the cost of medical care. All of us have heard patients at one time or another brag about the big fees they paid at some big named clinic and almost in the same breath, gripe about the high cost of medical care.

RAPID TRANSPORTATION

Good roads all over the country at the present time make the patient closer to the

doctor than ever before. The patient who lives twenty miles away is now closer to the doctor than the patient who lived three miles away in the old "horse and buggy" days. Good automobiles not only make quicker transportation for the patient, but make it easier and safer even over long distances. Almost any car can be converted into a bed of some sort for a sick patient. Ambulances go many miles to bring in sick patients to medical centers. Even a truck can be made into a bed that is more comfortable than the old wagon or buggy.

Many small towns and communities that formerly had one, two, or three doctors have no need for even one doctor at the present time. The ease of transportation makes it much more desirable to transfer the patient to the doctor's office, or clinic, or even carry him to a hospital.

Because of better transportation, certain other facilities developed for the better care of the patient: A concentration of physical equipment in the form of buildings, laboratory, x-ray and other equipment for the better diagnosis of disease; a concentration of nurses, technicians and other allied medical help in these centers; a concentration of medical personnel. Doctors find they can more properly care for their patients when working in association with other doctors. They can combine their financial and educational resources for the better care of the patient. Naturally, the patient who gets the advantage of this increased medical care makes a speedier recovery and is more ready to go back to his job.

People are now only a few hours from any medical center in the country. Through rapid railroad and plane transportation the patient can be carried all the way across the country in less than a day's time. Kitchen table operations are no longer necessary. Blood, plasma, glucose, and many other of the present day essentials of medicine, are available practically on every street corner. Rare and expensive drugs can be had in a few hours from anywhere in the United States. If a patient can live long enough for any treatment to do him any good, he can be transported to that place, or that treatment can be transported to him without endangering his life to any extent. Thus transportation itself contributes as much to good medical care as any other thing. Without it many people would die that will now live. This, within itself, makes dispersal of doctors in many cases unnecessary.

LACK OF LOCAL INTEREST

Many communities never consider their doctors as community assets. They consider their churches, schools, banks, stores, and many other items that are a part of the community as assets, but they consider the doctor as just another citizen. They do not consider him of sufficient importance to be interested in whether he succeeds or not. They are perfectly willing to pass him by and go into the city for their medical care. If they use him in emergencies or at night, many of them consider it unnecessary to pay his bills. If they do pay them, it is done very reluctantly and they usually "gripe" about it. In general, the rural doctor who is a financial success is looked upon with a considerable amount of distrust, envy, and in some cases, downright jealousy.

Many rural communities never consider it necessary to supply the doctor with the buildings, equipment, and personnel that are necessary to run a good clinic. A good clinic with good equipment is always a community asset. I believe the opinion has developed all over the country that this must be supplied by the community itself, if the location is going to attract and hold a good physician. If such a clinic is built by the community, equipped by the community, and allied personnel supplied locally, then a qualified physician can always be obtained to run it. If he is not satisfactory, then of course he can always be discharged and someone else obtained.

The clinic can be either leased to the physician or donated, whichever the community considers best. Home nurses and home technicians, if properly trained, are always more valuable and easier to hold than ones who have to be imported from outside. A public spirited community will

find it necessary to send one or two of their own high school graduates away to study nursing or take a course in x-ray and laboratory technics. It may be profitable to send another one away for a business course. If the community takes the proper interest in itself, and works cooperatively, it can solve its own medical care.

In order to do this there must be developed a community interest and spirit similar to that which is commonly shown in schools. Your community must be interested in having as good medical care and as good health as a neighboring community. You must take a personal interest in your doctor and above all when you have him there, you must use him.

HOW WE CAN SOLVE THE DOCTOR PROBLEM

In order to solve the rural health problems, it is oftentimes necessary to make a survey to see whether or not the community needs or can support a physician. Obviously, if there are not enough people in that community and its immediate surrounding territory, financially able to support a physician, it is foolish to try to get one in. If the community is too close to a well established medical center or clinic, it may be folly to try to get one.

The next step, after the survey is made, is to provide the physical facilities. These are necessary for good medical care. A building of sufficient size must be provided either by new construction or renovation of an old building. A community should not want to put a doctor and his personnel in a shabby, rundown building of which everybody in the community would be ashamed. We see this done sometimes with our Public Health Units and it should certainly be avoided when we are preparing for our doctors.

Then the building must be properly equipped. There are certain minimum requirements that must be met. These, of course, include reception room chairs, examination tables, an x-ray of some kind, and some laboratory equipment. Most doctors will want an electrocardiograph, diathermy, ultra-violet light and also diagnostic aids. If the doctor is to give good medical care to that community, then these facilities are just as important as the stethescope, the thermometer, and the blood pressure apparatus.

The average young doctor is not able to buy and install this expensive equipment on the possibility that he can pay for it out of his income. The community knows that it needs it; that if one doctor does not use it, another will. But the equipment must be provided. These things should be kept up by the doctor in charge and replaced by him when they are worn out. There are many little items that the doctor himself will want to buy that are easily replaced, and are more or less inexpensive and these, of course, will be his own personal property, but the main plant and equipment should belong to the community. When such a physical plant is provided, it is much easier to get a well trained general practitioner to come to the community than it would be otherwise. Generally, he will stay.

In many communities a small hospital is advisable, or it may be considered necessary to put hospital beds in the clinic recommended above. These hospital beds may be used for only daytime service or it may be advisable to keep patients overnight, particularly emergency cases and those for delivery. If the community is large enough, then, of course, a small hospital may be provided on a nonprofit basis. If this is done, Federal funds are available under the Hill-Burton Act (Public Law 725). This will take care of one-third of the building costs. The maintenance will have to be by the community.

As mentioned above, local well trained personnel (for clinic or hospital) are usually much more satisfactory than imported personnel. A girl who is born and reared in a community and has had nurses' training is much more likely to come back to that community than one who has been brought in from outside. The same is true for technicians, stenographers, bookkeepers, maids, or any other allied personnel.

Then the community, after it is organized, can ask its medical schools and hospitals to train more good general practi-

tioners. No community wants any kind of poorly trained medical man. Many doctors are educated at enormous taxpayers' expense. Obviously, many of the doctors recognize that they owe the state and community a considerable obligation, and are willing to donate large amounts of their time to the medical indigent.

Although most communities cannot afford several specialists, they can afford one good general practitioner. But this general practitioner must be well trained. He must be capable of doing 85 to 95 per cent of the community work, and he must be able to do it well. We want him not only to be able to deliver a baby, but to take care of croup, treat a coronary occlusion, and in many cases, remove tonsils, or do an appendectomy. The latter, of course, should only be done where there are hospital facilities available and he must be trained for doing that type of surgery.

As a community you can persuade your doctor to attend medical conventions and take postgraduate courses. This makes him a better doctor. Thereby, he keeps up with current advances. Do not expect your doctor to stay on the job seven days a week, three hundred and sixty-five days a year. Every time he takes out a week for any kind of postgraduate training, he comes back just a little better doctor.

Then, he should become a member of the American Academy of General Practice. The Academy expects to take in the best general practitioners. We are going to insist on each member's keeping up his postgraduate training. At least one hundred and fifty hours of postgraduate work will have to be done every three years, in order to stay in the organization. The Academy wants the general practitioners to be the best trained men in medicine. We realize that the specialist is a little better trained in his own specialty. But the general practitioner knows so many more things about the human body as a whole that he never loses sight of any part of it in carrying on good medical care. Through the Academy we expect to raise the standards of the general practitioner and the prestige that he so justly deserves.

In conclusion, I want to insist that you use your doctor when you have him. Make him your family physican; always consult hi mfirst for any and every illness. By far and large he will be able to take care of your needs and usually at a cheaper cost, but if a specialist is needed, let your family physician be the one to select the consultant. We need consultants. We have to have them. We want them well trained. *But the well trained general practitioner will know when and whom to consult.*

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POSTMENOPAUSAL BLEEDING FROM BENIGN UTERINE LESIONS*

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AND

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It is with some trepidation that attention is called to the *benign* lesions which produce postmenopausal bleeding. For years every teacher of gynecology has constantly repeated the trite, but none the less true, medical aphorism that "all postmenopausal bleeding is due to malignancy until proven otherwise." The following remarks and observations must in no way detract from this fact. At the present time the diagnosis and treatment of uterine carcinoma, both cervical and endometrial, are widely discussed within our limited knowledge of such diseases. But there is a distinct hiatus in our knowledge of the postmenopausal bleeding which has been "proven otherwise." It is the purpose of this paper to present and discuss not only the etiological factors but also rational methods of therapy. The discussion will be limited to benign uterine lesions with full knowledge

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that many vulvar and vaginal lesions, benign as well as malignant, produce postmenopausal bleeding which must be differentiated from uterine bleeding. Fortunnately, direct inspection supplemented by biopsy permits a simple and efficient differential diagnosis of most such lesions.

Postmenopausal bleeding may be defined as any bleeding from the generative tract which occurs at least one year after the cessation of menses. Some gynecologists place the time limit at two years rather than one. This time factor is of no great clinical importance, but the bleeding is of greatest importance.

Admittedly, we do not know the frequency of postmenopausal bleeding in the general feminine population, but this is no doubt greater than studies have indicated, as many women never bring such problem to their physicians. We know that the incidence of benign postmenopausal bleeding is increasing. This does not imply that uterine cancer is less common, on the contrary, it too is increasing in frequency. Cheek and Davis[1] reviewed the literature concerning incidence, and substantiated the widespread clinical notion that about half of all postmenopausal bleeding is due to malignancy. The incidence in various American clinics varied from 53 to 81 per cent. At least this was true from 1930 until 1941. However, their recent survey[1] at the Johns Hopkins Hospital indicated that now only 36.1 per cent of postmenopausal bleeding is produced by malignancies. The cause for this proportional change is not known. Some of it may be due to prompt reporting by the patient of all bits of bleeding and some is undoubtedly due to the widespread clinical notion that about half perience confirms this belief. Whatever the cause may be, a greater proportion of observed patients have benign uterine bleeding than was the case ten or fifteen years ago.

Because of confusion in diagnosis of benign uterine bleeding the methods of therapy have often been poorly designed. Some physicians because of a morbid fear of carcinoma, a fear by no means unjustified, treat most of the patients as though carcinoma were present. That is to say by total hysterectomy with or without preliminary irradiation. Others use the implantation of intrauterine radium indiscriminately. This subjects many patients with benign lesions to the unnecessary discomfort, morbidity, and mortality of major surgery or radium insertion. Far worse, of course, is no treatment or a subtotal hysterectomy as neither treats the malignant nor the benign lesion properly.

DIAGNOSTIC METHODS

In addition to the usual historical questioning, it is necessary to emphasize one or two worthy points. First is the intake of estrogens. One of the causes of postmenopausal bleeding is overtreatment with estrogens. They may be found in capsules, pills, pellets, "shots", suppositories, ointments, and even in cosmetics. Secondly, questions should always be directed towards the presence of blood dyscrasias such as "black and blue bruises", and bleeding gums.

If the history is followed by a careful pelvic examination, including speculum examination under good illumination, the diagnosis will be made immediately about half of the time. However only a very few of the patients with abnormal *uterine* bleeding will be diagnosed correctly at this time. Yet it is at this point that patients are too frequently taken directly from the examination table to major surgery or radiation therapy. Vaginal cytological smears may be made at this time as an aid in diagnosis, but is must be clearly understood that at the present stage of our knowledge such smears are not to be considered as finally diagnostic. With few exceptions, to be mentioned later, every patient with postmenopausal bleeding should have a diagnostic curettage and/or biopsy of suspicious cervical lesions.

Before proceeding with other diagnostic methods, it is important to probe the endocervix of all patients past the childbearing age with a small, blunt, slightly malleable sound. Such a simple procedure may establish the presence of an inverting

carcinoma of the endocervix in the shell of an apparently normal ectocervix. It will also often demonstrate strictures or adhesions of the cervix which are the cause of bleeding.

Many physicians are not obtaining maximum diagnostic information from curettage because they fail to make it a fractional or differential curettage. First the cervical canal is dilated and curetted and the specimen, however small, is always kept separate for the pathologist. Then the uterus is curetted thoroughly in a systematic fashion. The curettings should be caught on a strip of gauze, moistened in saline and squeezed gently to remove excess blood. The purpose of fractional curettage is twofold. First, the concentration of cervical tissue may permit diagnosis of a tiny early cervical carcinoma that might otherwise be lost by dilution with the abundant uterine curettings. Recently, several articles have appeared in the current literature describing various new instruments for obtaining a representative biopsy of the squamous-columnar junction of the cervix. We have used the curet successfully for this purpose for many years. During the past year it has been possible to make a diagnosis of cervical carcinoma on two occasions from the cervical curettings in an otherwise apparently nonmalignant cervix. Second, fractional curettage also assists in distinguishing cervical adenocarcinoma from endometrial adenocarcinoma.

The use of the suction curet or similar tool to obtain samples of endometrium for differential diagnosis of postmenopausal bleeding must be condemned. Such a curet is admirably suited for its intended purpose—the sampling of an endometrium to determine the presence or absence of ovulation. Even a random curettage removes no more than 50 to 75 per cent of the endometrium; although a systematic technic will do much better. How unrepresentative then is the endometrial biopsy!

DIAGNOSIS AND TREATMENT

Once malignancy has been excluded the problem is only partly solved. The remainder of this paper will concern the diagnosis and treatment of the common benign lesions which produce the remainder (over half) of all postmenopausal uterine bleeding.

Cervical Polyps: One of the frequent cervical lesions in this age group is the polyp. These bright red, velvety, pedunculated growths have a small pedicle and are quite vascular. As they usually protrude well beyond the cervical os, they are easily removed by snipping the base or twisting the pedicle. Rarely are cervical polyps malignant, but all should be examined histologically. Epidermization about the base of the polyp commonly leads to an erroneous diagnosis of malignancy, yet only a few days ago we did observe a squamous cell carcinoma developing in the base of a polyp. As a group, cervical polyps are generally innocuous and the gynecologist is usually delighted to find one when a patient presents herself with postmenopausal bleeding.

Cervical Erosion, Cervicitis and Cervical Ulcer: The diagnosis and treatment of such lesions are so well known that little more needs to be said except to warn again that there must be a biopsy of suspicious lesions to exclude carcinoma. Cervical ulceration and bleeding associated with prolapse are occasionally seen. A biopsy should be taken to exclude malignancy. Treatment consists of bed rest, cervical replacement and palliative local therapy followed by an appropriate vaginal plastic procedure after the ulcer has healed. Adhesions and strictures of the cervix also produce vaginal discharge and bleeding, but usually because of a secondary endometritis rather than from bleeding by the local lesion. This will be discussed later.

The diagnostic possibilities of the benign lesions of the corpus uteri are more numerous and only the more important ones can be considered herein.

Endometritis: The surface epithelium of the senile endometrium becomes very flat and thin and at times is apparently absent. Such a mucosa is readily susceptible to infection, and following infection, bleeding. Cervical strictures, adhesions, trauma

and pessaries, and other factors known and unknown may produce a secondary endometritis varying from a mild senile endometritis to a severe pyometra. A diagnostic curettage usually cures. If pyometra is present then curettage should be delayed but never forgotten because of the common association of pyometra and carcinoma.

Hyperplasia of the Endometrium: Under the term hyperplasia we shall consider only the uniform generalized hyperplasia of the entire endometrium which is difficult to explain on any basis other than stimulation from endogenous or exogenous estrogens. Furthermore the hyperplasia may be either active or retrogressed.

1. Active Hyperplasia Due to Exogenous Estrogens. It is a bit difficult to understand why patients one or two or more years after the menopause are treated with estrogens. (The local vaginal application of estrogens obviously excluded.) But such is the case and these women often bleed as a result. The proper management of these patients is by no means settled, but as a general rule it is safest for the patient to have diagnostic curettage. It is dangerous to assume that postmenopausal bleeding is benign just because the patient is taking estrogens. We have seen, as no doubt you have seen, endometrial carcinoma in women who were taking estrogens. However if the patient is well known to the physician, and if she can be depended upon to return without fail for check-up examination then nothing more than immediate withdrawal of estrogens is necessary. Any bleeding subsequent to withdrawal of hormones must always be investigated by curettage. The vagaries of carcinoma make it most dangerous to dispense with diagnostic curettage in any woman with postmenopausal bleeding.

2. Active Hyperplasia Due to Endogenous Estrogens. If the hyperplasia can be clearly distinguished as generalized and not localized, as in sessile or pedunculated polyps, the most likely cause is ovarian tumor. Kottmeier[2] believes that 95 per cent will have tumor if a true generalized hyperplasia is present. This is at some variance with the opinion of Novak and others.[3] Of course, the feminizing granulosa cell and theca cell tumors often, but not always, produce sufficient estrogen for the development of active endometrial hyperplasia. Other ovarian tumors, such as adenocarcinoma fibroma, and cystadenoma, have been known to produce or to be associated with postmenopausal endometrial hyperplasia. Therefore, if the hyperplasia is active and generalized, and if the patient is two years postmenopausal and has not been taking estrogens, laparotomy should be seriously considered. Obviously laparotomy must be done when solid tumor masses can be palpated in the adnexal areas.

3. Retrogressed Hyperplasia. This is an inactive form of hyperplasia which has caused much confusion among pathologists as well as gynecologists. The importance of this condition is not that it causes bleeding, for it probably does not, but that some women bleed who have retrogressive hyperplasia which is incorrectly interpreted as an active hyperplasia. Sometimes this results in unnecessary laparotomy in search of a solid ovarion tumor.

The following case history very clearly illustrates the features of this condition.

Mrs. M. C. Age 55 years. Admitted with a chief complaint of bleeding for six weeks. She was three years beyond the menopause, which was characterized by irregular periods of excessive bleeding. Physical examination, including pelvic examination, revealed no significant abnormalities. A diagnostic curettage revealed a retrogressed hyperplasia; in fact it was a retrogressed cystic glandular hyperplasia. There has been no recurrence of symptoms.

There is little doubt that this represents an inactive form of the hyperplasia which was surely present at the menopause. No one knows[3] how long such an endometrial picture will persist after menopause, but we have observed it as long as eight years after the menopause. Histologically there are two outstanding features.

First, the epithelium is rather low columnar in type and no mitotic activity is present. Stratification of nuclei are very rare. Second, the stroma is even more distinctive. Whereas the stroma of true hy-

perplasia is always very active and crowded with dark staining nuclei with scant cytoplasm, the stroma of retrogressed hyperplasia is quite fibrous, has fewer nuclei, no mitotic activity, and an affinity for eosin stain.

Endometrial Polyps: There is more than a little confusion betwen polyps and hyperplasia. The chief difference is that polyps grow because of a local impetus and as a result grow in an irregular fashion as distinguished from hyperplasia, which has a more uniform generalized activity. Polyps are usually either true endometrial polyps or adenomatous polyps. The former resemble true endometrium and its stroma, and when present during active sexual life they sometimes undergo cyclic secretory changes. This, of course, does not occur after menopause. The adenomatous polyps have less stroma and more papillary gland structure. A third and rather uncommon type of polyp is the adenomyomatous polyp which has smooth muscle in its core. The resemblance to adenomycosis is obvious. Clinically these polyps may prolapse through the cervix but often they are not recognized until the curettage is done. They are rarely malignant, but must be studied histologically. Curettage is the treatment of choice.

Myomas: Bleeding from these lesions after the menopause is not common, but it can and does occur. Myomas characteristically regress with the menopause and if abnormal bleeding was not present earlier none will appear unless the original tumor was submucous or unless, as Te Linde[4] has pointed out, shrinking of the uterus after menopause squeezes the intramural myoma so that it becomes submucous. Bleeding myomas after the menopause also suggest the rare sarcomatous degeneration which is present no more than once in two or three hundred myomata. There is little place for radium or x-ray therapy in the management of bleeding myomas. Irradiation acts primarily by castration and only slightly directly on the uterus. The postmenopausal patient is already a physiological castrate, so further effect upon the ovaries is unlikely. Bleeding usually comes from erosion of vessels about the myoma and the necrotizing effects of x-ray irradiation can be expected to have little value. The treatment of choice is total hysterectomy by the abdominal or vaginal route.

Miscellaneous: Into this group fall a host of uncommon and rare causes of bleeding and also those many patients in whom no cause for the bleeding can be found. Many of these cannot be discussed at this time. For example, does hypertension produce bleeding from the endometrium?

Blood Dyscrasias: These must never be forgotten. Thrombocytopenic purpura is not a rare cause of postmenopausal bleeding. The bleeding may be a part of idiopathic thrombocytopenic purpura as the following case illustrates.

*Mrs. L. C. Admitted with a complaint of profuse vaginal bleeding. Diagnostic curettage revealed endometrial hyperplasia. A total hysterectomy was done and more than usual bleeding was noted, but the patient had an uneventful recovery. At the time of postoperative examination the patient was found to have numerous subcutaneous ecchymoses and petechiae. The spleen was enlarged and the platelet count was very low. Splenectomy was followed immediately by a return of a platelet count to normal and a disappearance of bleeding tendencies.

Damashek and Rheingold[5] have recently reported a similar patient age 52 with postmenopausal bleeding due to idiopathic thrombocytopenic purpura.

Few gynecologists are aware that thrombocytopenic purpura can occur with stilbestrol therapy. Watson[6] has reported several instances of such a toxic reaction and we have on one occasion observed postmenopausal bleeding without endometrial hyperplasia, but with a low platelet count. It was assumed that the thrombocytopenia produced the endometrial bleeding. The diagnosis is readily made by a platelet survey from the blood smear, from bleeding and coagulation time, and from a tourniquet test for petechiae.

Carcinoma of Fallopian Tube: Mention

*Presented through the courtesy of the Huey P. Long Charity Hospital, Pineville, Louisiana.

of this in a discussion of benign bleeding is necessary because diagnostic curettage will not reveal malignant tissue. Vaginal cytological smears are of help as is the palpation of an adnexal mass. Treatment is surgical though rather uniformly unsuccessful.

No Endometrium Obtained: This is not an uncommon pathological report. If the curettage has been carefully done there should be very few such reports because it is nearly always possible to obtain a few shreds of atrophic endometrium if the physician curets thoroughly and sends every bit of tissue to the laboratory. If no endometrium whatsoever appears on the microscopic slide in spite of a thorough curettment then it is well to suspect that a false passage may have been created by the cervical dilators. We have observed two such patients. In both uterine bleeding recurred and a second curettage was done without obtaining evidence of endometrium. Both patients were subjected to laparotomy and in one there was a carcinoma of the endometrium. The other had a mild endometritis with a cervical stricture. In both a traumatic false passage was present.

A discussion of this type is not complete without a consideration of the patient in whom curettage fails to reveal the cause of bleeding. Such a patient must be reexamined every two or three months for at least a year if there is no further bleeding. If bleeding recurs she should be admitted to the hospital for a second curettage. If at this time there is still no diagnosis then an exploratory laparotomy is the treatment of choice.

SUMMARY

All postmenopausal bleeding must be considered as malignant until proven otherwise. Much has been written and said about the treatment of malignant uterine lesions, but what shall the physician do about the benign ones? The fact that the proportion of benign to malignant lesions is increasing in recent years does not mean that there is less carcinoma. It probably means that there are more diagnostic curettages being done and it probably also represents a widespread use of estrogens. The proper treatment of these lesions depends upon an accurate histological and clinical diagnosis.

The history should always carefully describe the use of estrogens in any form. It should also include the presence or absence of any hemorrhagic diathesis. Vaginal cytological smears may be a part of pelvic examination, but every patient with postmenopausal bleeding from the uterus should have the benefit of a fractional diagnostic curettage and/or biopsy of all suspicious cervical lesions.

Fractional curettage consists of dilatation and curettage first of the cervical canal, and second, the body of the uterus. Both specimens must be kept separate for the pathologist. Such curettage will permit the diagnosis of an early cervical carcinoma that would otherwise be lost by dilution with the more abundant endometrial curettings. It also assists in the differentiation of adenocarcinoma of the cervix from adenocarcinoma of the endometrium.

Cervical Polyps are common, usually benign, and may be removed by excision or twisting. They must be examined histologically to rule out carcinoma.

Cervical Erosion and Cervicitis, both are common and are readily recognized and treated. A biopsy must be taken to exclude carcinoma.

Endometritis. Quite a common lesion and due often to cervical adhesions and stricture. Curettage usually cures. If pyometra is present the curettage should be postponed until drainage is complete.

Endometrial Hyperplasia. Active hyperplasia due to exogenous estrogens is often suspected by history. As a rule it is safest to rule out carcinoma by diagnostic curettage and withhold further estrogenic therapy. Active hyperplasia due to endogenous estrogens usually suggests some type of ovarian tumor, most commonly granulosa cell tumor or theca cell tumor. Treatment is by laparotomy if adnexal tumors are felt. If no tumor is felt, laparotomy should be considered if the hyperplasia is unquestionably active and generalized. Endometrial polyps may interfere with cor-

rect histological diagnosis. Retrogressed hyperplasia is the final resting stage of a previous active hyperplasia. It is readily recognized histologically and does not signify coexisting estrogenic stimulation. Patients probably do not bleed from this lesion and the finding is incidental. Curettage is sufficient therapy.

Endometrial Polyps. These represent local activity of the endometrium and are usually endometrial or adenomatous in character. They are readily diagnosed histologically but must not be confused with hyperplasia. Treatment is by curettage.

Myomas. Occasionally intramural myomas may become submucous after the menopause. Submucous myomas may bleed because of necrosis and degeneration. Diagnosis is usually made at the time of curettage and treatment is hysterectomy. Radium and x-ray have little place in the treatment of bleeding myomas after the menopause.

Miscellaneous. Blood dyscrasies, such as thrombocytopenic purpura, may cause postmenopausal bleeding. Of importance is the diagnosis and treatment of the blood dyscrasia. Patients with recurrent postmenopausal bleeding after a diagnostic curettage which has failed to provide a diagnosis should have a second curettage and then laparotomy if the diagnosis is still obscure.

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DISCUSSION

Dr. J. Dudley Talbot (Shreveport): Dr. Lund has given us a very excellent paper on handling of postmenopausal bleeding. Still too many doctors are treating these cases the same as they did ten years ago, that is, curetting their patients for benign bleeding, then at the same setting, placing radium, their reasoning being that in case the pathologist should return a positive diagnosis of malignancy, they have helped the patient in that they have already begun treatment for malignancy. Actually, instead of helping, they may be doing harm. First, because we are destroying our greatest single sign of early cancer, that is bleeding. Second, as Dr. Lund pointed out our D & C may have been incomplete and malignancy was missed. Third, by giving small doses of x-ray or radium we may be promoting growth of malignancy in the cervix and uterus.

Harold Speewert and Thomas Speightal, in a recent survey of 270 cases of malignant tumors of the uterus, found that 21 patients or 8 percent had received previous treatment with x-rays or radium for *benign conditions.* Werner reported 3 cases in which carcinoma of the corpus occurred in women, ages 36 to 47 years, between eight months and seven years following treatment with x-ray. Bland treated a patient, age 56, with 244 mg. hr. of interuterine radium for a myoma. Three years later she was found to have an early endometrial cancer.

Tyrone, in 1947, in his analysis of 436 hysterectomies, cited 7 cases in which cancer of the endometrium developed several years following radium therapy for benign conditions.

Speewert gave the average time interval between an irradiation and detection of the uterine carcinoma in thir series as 8.3 years. Their findings, together with previously published data in literature, suggest a possible carcinogenic effect of radiation energy on the human uterine fundus.

Therefore, as Dr. Lund has suggested, let us D & C patients first, leaving off all x-ray and radium therapy until we have a definite diagnosis of malignancy. If the patient continues to bleed in the absence of malignancy, we are justified in repeating our D & C if necessary several times. Usually such benign conditions will be cleared up after the first D & C. However, if this is not the case, a laparotomy with total hysterectomy should be considered.

Dr. Curtis Tyrone (New Orleans): I like Dr. Lund's definition of postmenopausal bleeding, that is, any bleeding which occurs in a woman one year after the menopause. Postmenopausal bleeding is going to become a more important problem, because with the present increase in the span of life more women are going to live longer in the postmenopausal period. I believe that our life span is now some 68 to 75 years whereas 30 years ago it was only 55 years.

Certainly, no fault can be found in the method of diagnosis of postmenopausal bleeding which Dr. Lund has outlined and this was all covered by Dr. Talbot.

To prevent postmenopausal bleeding in women before the menopause, the old advice given to pa-

tients with uterine fibroids was that no treatment was necessary. We are all familiar with Dr. J. A. Corscaden's report that any woman with fibroids of the uterus has three times as much chance of getting a malignancy of the endometrium as of the fibroid. I believe that any woman with uterine fibroids manifesting symptoms at the menopause should have a hysterectomy. It is necessary to talk to these patients and stress the changes of all benign bleeding, but in this day when so much publicity has been given cancer, any bleeding after the menopause naturally causes the patient considerable concern. It is difficult to try to appease these women, or make them realize that such bleeding is benign. Most of them want more assurance than simply that the bleeding is benign; they want the uterus to be eliminated and I can't much blame them. It has been said that when no material is obtained following curetting, the patient may be reassured that she does not have a malignancy but too often this does not give them the assurance they wish. Of course, curettement does not necessarily rule out a malignancy of the endometrium, as no curette has eyes and a focal area of the endometrium could be overlooked. Therefore, I say there should be more widespread use of total hysterectomy in postmenopausal bleeding.

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CERTAIN ASPECTS OF ECLAMPSIA*

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AND

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SHREVEPORT

This paper is presented in an attempt to analyze certain clinical aspects of eclampsia with a fatal outcome; and, when possible, to evaluate the management of this disease on the basis of the anatomic changes found at autopsy.

MATERIAL

From 1932 through 1948, 37 cases of fatal eclampsia were autopsied by the pathology department of the Shreveport Charity Hospital. Thirty-three of these patients had severe toxemia with one or more convulsions during the last trimester. The remaining 4 had severe toxemia but expired without having a generalized motor seizure; however, autopsy revealed the liver changes usually associated with eclampsia. Eclampsia, then, may be a clinical diagnosis or it may be an anatomic diagnosis seen in the absence of the characteristic signs. The literature[3, 6, 7] is well documented with cases of eclampsia without convulsions.

MANAGEMENT

Our management of the eclamptogenic patient consists of a conservative regime. We feel that individual evaluation and care of the eclamptic is of utmost importance. Routine procedures have a very limited role in the management of these patients. Failure of strict adherence to sound principles and repeated evaluation of the patient will invariably lead to embarrassing complications. Too often the eclamptic is a victim of overtreatment rather than of her disease.

The drugs of choice in the control of convulsions, we feel, are morphine, sodium phenobarbital, and magnesium sulphate. Small doses of combinations of drugs may prevent the accumulative effect of any one sedative. The aim of sedation is to maintain the patient at a level between drug coma and a hyperexcitable state which lowers the threshold to convulsions. Deep sedation and immobility make these patients likely candidates for hypostatic pneumonia and circulatory collapse. Simple routine administration of sedatives is strongly condemned. The indications for repeated sedation can be derived only from careful frequent evaluation of the blood pressure, respirations, and state of excitability of the patient

The judicious administration of fluids will prevent waterlogging of these patients. Failure to maintain a balance between intake and output of fluids will precipitate pulmonary edema and congestive failure. We have abandoned the belief that the kidneys can be forced to excrete urine by the use of large quantities of intravenous fluids. The amount of subcutaneous edema, the urinary output, and the status of the lungs, heart, and blood pressure indicate the quantity of fluid needed.

The markedly edematous patient is especially vulnerable to large quantities of fluid. During twenty-four hours, 1500 cc. plus the

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amount of urine secreted is sufficient fluid for the average eclamptic. Some patients may, however, require more. There is evidence that 5 per cent glucose may prove as effective as 20 per cent, and with less damage to the veins. Whole blood transfusions are used to combat shock from blood loss or peripheral collapse. After convulsions are controlled and the patient is conscious fluids are given by mouth.

Pregnancy is terminated only after convulsions have ceased and a period of twenty-four to forty-eight hours has elapsed. When the cervix is partially effaced and admits at least one finger, medical induction is attempted; if this fails the membranes are ruptured artificially. In the presence of an unfavorable cervix and the persistence of toxemia symptoms we perform cesarean section. Rarely do we allow the controlled eclamptic to continue her pregnancy. Once labor is induced or begins spontaneously, it is allowed to continue normally and to terminate spontaneously or is ended by low forceps. Local or low spinal anesthesia is used for vaginal deliveries and local for cesareans.

CLINICAL ASSAY

This series is too small to draw any conclusions from statistics, but a few of the more interesting clinical findings are presented.

Age and Parity: The age range was 14 to 40 years. Fifty-seven per cent were less than 23 years of age, indicating that eclampsia is more common in the young gravida. As noted in table I, the primiparas had an average age of only 8.7 years less than that of the multiparas. Four of the multiparas were over 34 years of age.

TABLE I
PARITY AND AVERAGE AGE

Primaparas 23 (64.9%)	20.9 years
Multiparas 14 (35.1%)	29.6 years
Entire group	24 years

The ratio of primiparas to multiparas was 2:1. Generally eclampsia is seen about three times more commonly in the primiparas. The average parity for the multiparas (10) was 5.1. The greatest number of pregnancies for one patient was 16.

Color: Thirty-six of the patients were colored. This is not representative of the ratio (5:1) of colored to white admissions to the service, but is in keeping with the idea that colored women are more apt to develop serious toxemic complications than are white patients. (During the last seven years the ratio of colored to white eclamptics seen on our service was 7.7:1 and all of the fatal cases during this period were colored patients). This difference may be due to poor diet, the lack of prenatal care and the high incidence of pre-existing vascular renal disease among colored women.

Prenatal care: As might be expected the incidence of good prenatal care is very low in a series of this type. Only 1 patient had what was termed good prenatal care. About 16 per cent of patients delivered on our service have visited our prenatal clinic, but the remaining 84 per cent have very poor if any prenatal care. None of the patients in this group was enrolled at our clinic. This confirms the feeling that adequate prenatal care is essential if the incidence of toxemia is to be reduced.

TABLE II
PRENATAL CARE

Good	1
Fair	0
Poor	9
None	27

Prenatal care must include careful evaluation of water retention as indicated by weight gain and the appearence of edema, any significant change in blood pressure, especially the diastolic, and the presence of albuminuria. These are the early signs of toxemia and the appearance of any one of these findings should be a warning for energetic medical treatment.

Past History: Only 1 of these patients had previously experienced convulsions; however, this represents 23 per cent of the multiparas. Two had kidney disease of unknown duration and type, and 3 had a history of hypertension of undetermined duration. Probably many more of these patients

had previous hypertension, but the histories were often incomplete.

Signs and Symptoms: The usual signs and symptoms of toxemia of pregnancy were found in this group. A history of headaches, edema, dyspnea, and convulsions was most outstanding. These symptoms appear late in the coure of preeclampsia, indicating that on admission the disease was far advanced in most cases. The findings (hyperpyrexia, coma, tachycardia, dyspnea) indicative of poor prognosis were prevalent.

TABLE III
SYSTEM REVIEW

Edema	31
Headache	23
Dyspnea	19
Convulsions	17
Visual disturbances	11
Vomiting	6
Epigastric distress	6

Convulsion: It is significant that only 17 of these patients had convulsions prior to admission. This means that 16 had the first convulsion (4 had no convulsions before or after admission) after reaching the ward. Failure to sedate adequately on admission, during labor, and in the early postpartum period, is definitely an outstanding error in management. At least 12 patients had inadequate sedation prior to the first convulsion.

Failure to check the blood pressure frequently during labor was a common error in the management of the patients who were admitted prior to the onset of convulsions. Too much emphasis cannot be placed on the significance of the blood pressure rise during labor in certain patients. Uterine contractions may be the stimulus for convulsions as is indicated by the fact that 11 patients had the first convulsion during labor. (Fifteen patients had the first convulsion prior to the onset of labor and 7 had the first convulsion in the early postpartum.)

TABLE IV
TIME OF CONVULSIONS

Antepartum	15
Intrapartum	11
Postpartum	7
No convulsions	4

The greatest number of convulsions by one patient prior to admission was nine (2) and the greatest number that any patient had after admission was eight (1). It is of interest that no patient had a total of ten or more convulsions, contrary to what one would expect to see in 37 cases of fatal eclampsia.

TABLE V
PHYSICAL FINDINGS

Hypertension	34
Tachycardia	26
Convulsions	23
Edema	22
Coma	22
Hyperpyrexia (103°F.)	15
Cyanosis	4

Hypertension: Thirty-four patients had a hypertension of at least 140 systolic and 90 diastolic prior to exitus. Only 3 had no definite demonstrable hypertension, but 2 of these were in shock on admission and died prior to improvement, and the third had only one blood pressure recording on the chart. Twenty of the group had hypertension of 180 systolic or 110 diastolic or higher after admission. The patient is in greater danger of eclampsia if she is a young primipara with a blood pressure of 150/90 and persistent albuminuria than if she is an older patient with a blood pressure of 170/110. Failure to realize the gravity of an elevated diastolic pressure is not an infrequent error in the management of toxemias.

Coma: The high incidence of prolonged coma is not unusual in a series of this nature. The sudden development of deep, prolonged coma in an otherwise mild eclamptic should suggest the development of marked cerebral pathology. It should be mentioned that one may have difficulty in differentiating between true coma and stupor from heavy sedation.

Blood and Urine: No unusual urinary findings were noted. The majority showed rather marked albuminuria, casts and cells. One patient developed lower nephron nephrosis and died of uremia twelve days after delivery. None of the others showed an elevation of non-protein nitrogen.

Duration of Pregnancy: Twenty patients went to term as calculated by menstrual history. The range of pregnancy was twenty-eight to forty weeks with an average of 37.1 weeks.

Labor and Delivery: Nine patients had no labor; 8 died prior to the onset of labor and 1 was delivered by cesarean section in 1932. (This patient was a 30 year old primipara at term who had 2 convulsions prior to admission. She was sectioned immediately after arrival to the hospital while in a comatose state and *even after* the diagnosis of intrauterine fetal death was made. She went into shock and died four hours after section. The cause of death at autopsy was eclampsia.) Four patients died prior to delivery after variable periods of labor. There were 12 patients who expired undelivered. No prolonged labors were noted in the entire group.

TABLE VI
LABOR AND DELIVERY

Delivered		25
Spontaneous		18
Operative		7
Forceps	6	
Cesarean	1	
Not Delivered		12
Antepartum deaths		8
Intrapartum deaths		4

The immediate fetal mortality was very high, a total of at least 28 infants (2 sets of twins), including 12 undelivered, were lost. Others may have expired during the neonatal period as follow-up of the infants who entered the nursery alive is not complete.

TABLE VII
INFANT MORTALITY

Undelivered	12
Stillborns (2 sets of twins)	14
Neonatal deaths	2
Total	28

Percentage of mortality: 75.7

ANATOMICAL CHANGES

It is conceded that eclampsia is a systemic disease involving primarily the vascular system. The organs involved and the extent of the pathology may vary with the susceptibility of the individual and the severity of the toxemia, while the pattern of the visceral lesions is dependent upon the type of terminal circulation found in the individual organ. The old concept that eclampsia is primarily a liver disease arose from the observation that hepatic lesions are usually present in patients dying of this disease. We now recognize that other organs present changes which are just as significant as the liver necrosis in that they reflect the altered physiology of the vascular system and may in themselves be responsible for the death of the patient.

The theory that the altered physiology and the pathological lesions seen in the pre-eclampsia-eclampsia syndrome are due to generalized arteriolar spasm is becoming very popular. Irving[5] was one of the first to advocate this theory, and recently others[9, 10] have expressed the belief that angiospasm is the basic lesion of the toxemias of pregnancy.

The sequence of events as cited by Dexter and Weiss is as follows: A generalized vasospasm causes hypertension which leads to small arterial and arteriolar changes; this produces ischemia and necrosis of tissue distal to the spasm; release of the spasm results in hemorrhage.

The important anatomic changes found in our series are presented in the following section. No attempt is made to correlate these findings with a theory for the pathogenesis of eclampsia.

Liver: Degenerative lesions of some type are almost constant in the liver. The characteristic gross lesions are irregular areas of hemorrhage associated with necrosis of or atrophy of the liver cords. In our series the outstanding gross lesion was subcapsular hemorrhagic necrosis of the liver. This anatomic lesion was noted in 34 cases, and was described as marked in 23 cases, moderate in 8 instances, and scanty in only 3 patients. The lesion was usually most marked in the right lobe.

The microscopic liver change consists of hemorrhage necrosis which is usually, but not necessarily, found around a portal space. In our series the microscopic lesion

was limited to periportal necrosis in only 15 cases. In 6 cases the distribution was both peripheral and central, and in 2 instances the necrosis was found only in the central portion of the lobule.

Anemic infarcts have been described but were absent in our series. Thrombosis of portal vessels was occasionally seen.[4]

The liver lesions are not present in all cases dying of eclampsia, as was shown by one of our patients who had a typical clinical course, but showed no liver changes of note on microscopic examination. However, one in unable to state that liver changes are entirely absent unless serial sections are done. It is of interest that the liver lesion may be scanty or absent in patients with long standing toxemia symptoms and die soon thereafter. Way[3] was not able to correlate the amount of liver pathology with the duration of the toxemia. Most authors feel that the liver lesions are reparable as no liver disease has been noted in patients dying from other causes after recovering from eclampsia.

Kidney: Grossly, the kidneys may appear normal, or only slightly enlarged. They may be pale or grayish white in color, or if congestion is present, they may be of such deep dark red color that the markings may be obscured. No gross pathognomonic kidney lesion has been observed.

The important changes are seen in the glomeruli which are bloodless and so swollen that they fill out the entire capsule. The capillary basement membrane is usually thickened and may even be duplicated. Bell[11] feels that the thickening is due to an increase in substance, while others take the view that simple edema causes the swelling.

The afferent or preglomerular arterioles are thickened and may undergo necrosis with thrombus formation.

Symmetrical necrosis of the cortex is occasionally seen. Here there is almost complete necrosis of the cortices of both kidneys with thrombosis of the interlobular arteries.

The tubular changes vary from cloudy swelling to degeneration and are not characteristic of eclampsia as they are seen in numerous other diseases.

Accompanying renal changes were prevalent in this series as noted in the following table:

TABLE VIII
ADDITIONAL RENAL LESIONS

Pyelonephritis	8
Acute	1
Chronic active	5
Healed	2
Hydroureter	9
Dilated pelvis	5
Lower nephron nephrosis	2
Arteriosclerotic (marked)	2

The kidney lesion known as lower nephron nephrosis is becoming very popular in obstetrics as well as in other fields. Clinically, this lesion is hard to establish, but we have noted several severe toxemias develop urinary suppression in the absence of transfusion reactions and premature separation of the placenta. We make no attempt to postulate what role the toxemia per se may play in the production of this lesion, but merely mention it in passing.

One of the patients who exhibited this type of lesion had received sulfathiazole prior to admission and died of uremia. The second patient developed urine of a port wine color after remaining in a shocklike state for approximately ten hours. The cause of death was listed as "eclampsia".

Brain: The changes that occur in the brain of patients dying of eclampsia are edema, thrombosis of cerebral vessels, intracerebral hemorrhage, and subarachnoid hemorrhage.

Edema of the brain is indicated by flattening of the convolutions, and by the wet appearance of the tissue on section. Edema here is due to the same factors that cause edema elsewhere. In this series edema was prominent in 19 of 22 brains examined. Death was not attributed to edema in any case, although this may be the cause of exitus in certain cases. The relationship of cerebral edema to convulsions and coma is debatable. Three patients who had no demonstrable cerebral edema had generalized motor seizures.

Cerebral thrombosis was observed in only 1 case in this series. She was a 15 year old colored primipara with no history of previous hypertension or syphilis. Usually the lesion is found in older patients with evidence of chronic vascular lesions of long standing.

Intracranial hemorrhage is common in eclampsia. DeLee[8] reports the incidence as high as 40 per cent. The hemorrhage may be scanty or focal in nature or it may be massive, similar to that which is seen in chronic vascular disease.

Hemorrhage was observed in 7 of the 22 brains examined in this group, an incidence of 31.8 per cent. The hemorrhage was massive in 6 cases and was the cause of death in each instance. Focal subarachcnoid hemorrhage was present in a 14 year old colored primipara.

The youngest patient with massive cerebral hemorrhage was a 19 year old colored primipara. The average age for these 6 patients was 33.5 years. Two had a history of long standing hypertension, and 1 of these had eclampsia with a previous pregnancy. One had a history of renal disease of unknown type and duration. Two out of 3 with negative histories were primiparas who died without convulsions.

Adrenals: Recently considerable interest has been shown in the changes found in the adrenal gland of patients dying of eclampsia. Briefly, the pathology observed is necrosis and hemorrhage of the cortex. Way[3] reported that 11 of 33 eclamptics showed this lesion, and concluded that there may be a relationship between adrenal damage and the familiar shocklike syndrome that occurs in eclampsia. In the present series 6 cases showed varying amounts of hemorrhage and necrosis of the adrenal cortex. Review of the clinical course shows that 1 patient went into shock and expired within fifteen minutes, the cause of death being undetermined. Another patient went into sudden coma, shock, and died fourteen hours later, autopsy disclosing a massive pontine hemorrhage. Two other patients were in shock for at least twelve hours prior to exitus. The question may arise as to whether the shock precedes or follows the adrenal changes as these anatomic changes have been noted in patients who remained in shock from causes other than eclampsia.

Lungs: Pulmonary edema, atelectasis, and pneumonia appear frequently in the course of eclampsia. Six patients developed clinical evidence of acute pulmonary edema. Autopsy revealed marked pulmonary edema in ten cases. Death was due to the complication in 4 instances. Thirteen cases showed moderate pulmonary edema.

Atelectasis was observed in 5 cases, usually accompanied by pneumonia. Pneumonia was the cause of death in 1 case. This complication can be largely prevented by the use of antibiotics, by the omission of oral fluids during the convulsive stage, and by the judicious use of sedatives.

Heart: The heart was the site of significant anatomic changes in many cases. In 10 instances the heart was definitely hypertrophied, weighing more than 400 grams in 7 cases. On the basis of cardiac hypertrophy, the incidence of heart disease was 27 per cent.

Five patients under 30 years of age with cardiac hypertrophy had no history of chronic vascular-renal disease and no additional evidence of myocardial or vascular-renal disease was noted at autopsy. Therefore the cardiac hypertrophy may support the feeling that toxemias of pregnancy may in some instances produce heart changes of note. We feel that the cardiac hypertrophy in these cases is too great to be on the basis of pregnancy alone.

Five patients above the age of 30 years had a definite history of underlying vascular-renal disease and/or showed additional anatomic evidence of the same. Extreme care must be used in evaluating the vascular-renal status of eclamptic patients in order to avoid as far as possible the complications that may arise on the basis of these changes.

Marked pericardial and subendocardial petechial hemorrhages were noted in 5 instances and less extensive similar changes were found on 8 occasions.

Fluid in the body cavities was very com-

TABLE IX
HEART

Age	Parity	Heart weight in grams	Other evidence of cardiac or vascular-renal disease	History of vascular renal disease
16	0	420	Active pyelonephritis (kidney not contracted)	Negative
20	0	500	None	Negative
22	0	400	None	Negative
28	3	500	None	Previous eclampsia
29		450	None	Negative
35	0	600	Massive cerebral hemorrhage	Kidney disease?
31	3	370	Massive cerebral hemorrhage. Arteriolosclerosis of kidneys	Previous eclampsia Hypertension, 2 years
39	13	410	Massive cerebral hemorrhage. Fiedler's myocarditis	Hypertension
34		420	Uremia, lower nephron nephrosis, Fiedler's Myocarditis	Negative
35		400	Mural thrombi	Negative

mon in this group of patients. Ascites was present in amounts of 3000 cc., 2000 cc., 1500 cc., 750 cc., 350 cc. (twice), and 200 cc. (thrice). Pericardial effusion ranging from 60 to 250 cc. was noted on 12 occasions. Again, the danger of overloading the vascular tree with parenteral fluids must be stressed.

Cause of Death: The cause of death in eclampsia still remains a mystery in many instances. This is true from an anatomic as well as a clinical viewpoint. In the present group of necropsies, the anatomic lesions which were described as the cause of death by the pathologist are listed below.

TABLE X
CAUSE OF DEATH

Intracranial hemorrhage	6
Pulmonary edema	4
Pneumonia	1
Uremia	1
Hemorrhage, postpartum	1
Eclampsia	24

The familiar shocklike state that one sees in this disease is by far the most common terminal picture. Pulmonary edema and cerebral hemorrhage are the two most common anatomic changes that can be definitely listed as the cause of death. Clinically, pulmonary edema appears commonly prior to exitus and was thought to be the cause of death in 3 additional cases, but this was not confirmed at autopsy.

CONCLUSIONS

The conclusions we have gradually come to after studying the clinical courses and autopsy findings in this group of cases are not new, but we think they are sound.

1. The toxemia syndrome is better understood by considering it as a systemic disease of the vascular tree. The symptoms vary with the degree of arteriolar spasm and with the amount of injury to the various organs.

2. The frequent involvement of vital organs either by pre-existing vascular-renal disease or toxemia makes it mandatory to carefully evaluate the cardiovascular and renal systems in order to avoid complications which may be due to disease and/or overtreatment.

3. A conservative attitude in the management of the eclamptic patient is well founded. Individualization and repeated evaluation of the patient is the basic principle of management.

4. Therapy cannot be relaxed once the convulsions are controlled and diuresis established. The mother is never safe until the baby and placenta are out of the uterus. This does not advocate hasty operative delivery, but is, we feel, a conservative attitude.

5. A high fetal mortality is to be expected with conservative management. After the development of convulsions the baby must be ignored if the maternal mor-

tality is to be reduced. This does not apply to the preeclamptic or controlled eclamptic group.

6. Adequate prenatal care remains as the best weapon against eclampsia. One must never wait for the appearance of headache, dyspnea, vomiting, epigastric pain, and marked hypertension before becoming concerned. These are the symptoms and signs of advanced preeclampsia and impending convulsions. Treatment must begin long before this.

7. We have had 1 eclamptic patient die of hemoglobinuric nephrosis, a type of lower nephron nephrosis. There have been other preeclamptic and eclamptic patients who exhibited this syndrome clinically. It is a little difficult to prove in patients who survive, but we especially wanted to express our opinion of the importance of this interesting syndrome in obstetrical patients, rare though it may be.

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DISCUSSION

Dr. E. L. King (New Orleans): First of all I want to stress the main conclusion which is the necessity of proper prenatal care.

The second point is that we should not wait in cases of toxemia until they develop headaches, vomiting, visual disturbances, before we get concerned. The time to get worried is when the blood pressure starts up, long before they have any symptoms. Another point I think we can well stress is that treatment is not to overload these patients with fluid. Very interesting work in this connection was done by Arnold and Fay in Philadelphia a good many years ago. They went even further than most of us, in that they stated that the patient did not receive in one day any more fluid than she was able to put out as urine during the previous twenty-four hours.

We also agree that the patients should not be delivered during the convulsive stage; they should be delivered either before they develop convulsions or after they have recovered from this acute attack, and the labor should be as conservative as possible.

In 100 cases treated at Charity in the past few years, 10 cases died. Sometimes we run a better average than that, but that was the average for that 100. The high percentage of brain lesions is interesting. We have no doubt overlooked this cause of death at Charity Hospital, as the skull is frequently not opened at autopsy.

Dr. Norman U. Booker (In conclusion): The question was asked, as I recall it, whether the increase in weight of these hearts was due to edema or hypertrophy. They were described by the pathologist as being of the hypertensive type.

TITANS OF PSYCHIATRY—SIGMUND FREUD AND ADOLF MEYER*

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NEW ORLEANS

A comparison and contrast of the work and teachings of Sigmund Freud and Adolf Meyer is both timely and provocative, for they are the prevailing influences that shape the theory and practice of psychiatry today.

Freud, a Jew, was born in Freiberg in Moravia in 1856, and brought up in a strong background of traditional German schooling, with all that this implies. Always a serious student, from the beginning he excelled in the studies which ultimately led him into medicine. For years he did experimental work in the laboratory, making some of the first cocaine experiments, and particularly devoting himself to organic neurologic research. He entered psychiatry proper near the age of twenty-nine with a broad yet precise anatomic and physiologic knowledge of the nervous system based on a long period of laboratory work and clinical neurologic experience.

In psychiatry he found a field of work barely defined, largely nosologic and de-

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scriptive, and poorly formulated. Upon this confusing and undeveloped field, he brought to bear keen observation, an experimental attitude, and patience. Although his observations and conclusions drawn therefrom excited invidious opposition and acrimonious attack from many quarters, he, nonetheless, quietly pursued his course, and over a long lifetime slowly saw his labors bear rich fruit and his work substantiated and vindicated by experience and time.

Ten years later Adolf Meyer, the son of a Zwinglian minister who had rebelled against Calvinistic doctrine, and nephew of a physician, was born in 1866 near Zurich in German Switzerland. Early in life he showed his liking for medicine, beginning with an emphasis on neuro-anatomy, then neurobiology, pathologic anatomy and neurology, and finally psychiatry. Hoping for broader opportunities, he came to America, where much of his early work was in State hospitals. Having worked for considerable time in pathology, he, like Freud, brought extensive knowledge of the structure and function of the nervous system, as well as a great deal of experience, into his more specific work in psychiatry. As a clinical neurologist and psychiatrist, he became impatient with the compulsive, foolish, and fallacious searching of many of his colleagues who persisted in looking for a structural explanation for the many things man did, felt, and thought when he went awry. For he conceived of a physiology and pathology of the person himself as well, and not just of his isolated functions and parts. Accordingly, he studied man's behavior, his total performance, always in terms of that live and whole man, rather than a corpse or a disordered part or system, or a disorder itself separate from the individual who harbored it. He never lost his focus upon the sick and distressed person himself.

With a prevailing attitude quick to exclude anything not organic in orientation or colored with a physical patter, medical educators more easily accepted Meyer's plausible and unruffling approach to man. Thus the induction of psychiatry into American medical schools was facilitated at a time when there were strong resistances against psychiatry in general, let alone Freudian facts and theories. So Meyer's theories of personality function and therapy being more readily acceptable at this juncture than were Freud's, were partly the reason, he was so successful in introducing psychiatry not only into medical teaching, but into other quarters too, as well, which formerly were entrenched against it.

Freud, too, took a keen interest in the functioning of the individual in terms of his life experiences, past and present. Stimulated by an older colleague, Breuer, he became interested in hysteria and hypnosis, using the latter to obtain from his patients an understanding of the influence of dissociated components upon their behavior. He quickly ascertained thereby the presence of a domain of human motivation and thinking and feeling beyond the pale of consciousness. Time and time again he found evidence to support this concept. Fascinated by his discoveries, and widening their application, he showed that evidence existed of the unconscious at work in certain mistakes and slips in everyday life—in wit, in humor, and particularly in neurotic symptoms and behavior. He, too, found that in dreams there were many things that betrayed the presence of unconscious trends when decoded according to a scientific method that he developed. However, in working with his patients, he shortly replaced hypnosis with free association in which his patients talked freely, without selection or restraint, as a more effective way of understanding motivations and meaning in their actions and their distress that otherwise might be missed. He was also struck by the phenomenon of transference, wherein the patient reacted in the present in certain ways to the therapist and the therapy, repeating attitudes and behavior patterns of the past with reference to some important person in his life, usually a parent or parent figure. Thus with free association and dream interpretation, and with a study of transference and of resistance to certain issues and insights accruing in the flow of verbal material and behavior, unrealized motivation and the

meaning of the patient's disorder became clear and gradually accepted as a part of his widened and acknowledged range of consciousness.

Freud thus studied the unconscious or the area of repressed motivation underlying the behavior of his patient. Early in his career his studies were predominantly on neurotics, but he soon found that the laws which appertained in the minding functions of the neurotic were the same as those in the so-called normal person. Furthermore, it soon became evident that between these two it was not a matter of difference but rather one of degree. On the basis of his findings, he ultimately gave us a dynamic concept of the growth and unfolding of the human story based on a biology of finding sustenance, security, and satisfaction. He found in man as he studied him, fundamentally two drives—an altruistic, procreative sex drive as part of his love life, and an aggressive, competitive drive serving him for defense and offense, for achievement, and for security. He gave us a broad understanding of such motifs as love and hate, guilt and expiation, and fear of loss of love, and of retaliation — all of which have come to be extremely dynamic concepts in the practical treatment of nervous disorders.

From his observations, he gradually conceived of the personality as having certain functional and dynamic components: the ego, or conscious personality, whose role was to adjust man's inner needs to his outward circumstances in accord with certain restricting attitudes proclaimed by the conscience, or superego; and lastly the id, which represented man's undomesticated inner drives. Withal he never failed to consider man's constitution and heredity and environment, and readily gave them their place. Yet he extended the concept of environment b e y o n d simple physical surroundings to include the interpersonal circumstances into which the child was born and in which he did or did not thrive or progress in his emotional maturation during the formative periods of infancy and childhood. On the other hand he narrowed the scope of heredity[1] to more proper dimensions by showing that much behavior too easily attributed to this factor could be traced rather to certain unconscious components at work within the personality. By forcing a recognition of these dynamisms, Freud made man more directly responsible for integrating them into his conscious personality and ultimately into a more rational pattern of conduct.

In his study of the love life of man, Freud gave us a history of its growth and development from infancy to adulthood in terms of both genetics and dynamics within the child's interpersonal relationships that conditioned him from early in life. He demonstrated the so-called Oedipal phenomena wherein the child related himself to his parents with feelings and attitudes, some of which might be turbulent, or even violent. He showed how these Oedipal components together with others, if mastered and adequately repressed, merely constituted problems with which everyone must deal, but which are solved if interpersonal circumstances permit. However, if unmastered, these same components remained within the growing personality as a neurotic core.

Early in the course of this study, and to the consternation of those who otherwise presumed it to be objective, Freud brought forth his concept of infantile sexuality. At this time sex activities were not recognized or accepted as a part of normal development before they unmistakably flowered at puberty, and any earlier manifestations were discouraged and often harshly punished by the parents, and at best glossed over by the medical profession itself. So when Freud revealed facts about the fearful and forgotten area of childhood covered by what he called infantile amnesia, and demonstrated that in the earliest years there were sex phenomena, (not of a reproductive nature in terms of the adult, but sex, nonetheless), and showed that in the growing, but bewildered mind of the child much perverse behavior was encountered, even his colleagues were squeamish and resentful and slow to admit the truth. Yet Freud

merely pointed out that there was evidence of a gradual purposeful maturing of the sex drives and attitudes from birth in response to natural physical and emotional stimuli in the environment, and that the perverse behavior sometimes found was the result, generally, of unfortunate parental attitudes, and of natural curiosity, theorizing, and experimentation upon the part of the child. Subsequently, much confusion has arisen, both because of resistance to the fact that children could have sex feelings and drives, and because Freud applied the term "sex" to a wide area of activity*

These investigations in regard to infantile sexuality had implications as well for perversions in love life, which previous to his discoveries were neither understood nor viewed with constructive insight nor an amelioristic approach, but rather unequivocably condemned, or at best shrugged off, if not vindictively punished by society. Thus while Freud's theory of infantile sexuality proved to be disturbing, it has been validated by experience time and time again and will endure, for on this discovery alone much neurotic behavior becomes understandable and subject to modification.

Meyer, too, saw man as an individual functioning in a certain physical and emotional environment. But where Freud studied and utilized the unconscious, Adolf Meyer, on the other hand, rather exclusively worked with the consciously regulated functions, shying away from the unconscious factors that he thought of rather as less available assets. Hence he constructed a theory of human behavior more exclusively objective and less subjective than did Freud. He looked upon consciousness as "man's greatest biological achievement in bettering himself", and as "the integrating function of the whole man". Emphasizing life itself, Meyer worked in terms of the real and fully conscious attitudes and gave us concepts of subject organization and personality organization and a method for appraising man as an individual.

Steering clear of the "imagined cesspool of the unconscious",[2] he avoided the "self-referring" function and often drove at those who laid emphasis on the less domesticated tendencies in civilized man. Though never denying the existence of unconscious factors, by skirting them he left unattended a vital area of human function that indubitably calls for consideration and handling in any full and well rounded therapy. Rather Meyer emphasized the functions and assets of the total person and mobilized any resources in the environment or modified it where necessary and feasible. As for the unconscious, "he did not scratch where it did not itch"[3] the patient, thereby falling short of therapeutic opportunities — certainly for deeper changes where an alteration in the structure of the patient's personality would make a difference in the end result, and one more lasting. All in all, Meyer gave a broad pragmatic approach to nervous disorder, together with a great wealth of valuable studies of conscious functions, whereas Freud gave us not only a knowledge of the conscious personality and its technics in dealing with unconscious areas, but also a procedure that penetrates the deep layers of the personality to study these areas.

Following in the footsteps of Freud, the analyst today, in his interpersonal relationship with the patient, uses transference and countertransference attitudes and phenomena, and resistances and their analyses in attacking neurotic disorder. In the course of therapy he sees the core of the disorder gradually come to the surface and into the conscious personality of the patient, and knows that it developed over the preoedipal and oedipal periods, when envy, jealousy, hate, guilt, and fear arise in connection with parents and siblings. The analyst, too, sees the workings of repetition-compulsion, wherein patterns of symptoms and symptomatic behavior repeat themselves in consequence of conflicts — which Freud also pointed out. From him, too, he has an understanding of the deep drives and im-

*Here possibly the term "love" is better and more inclusive. For from the very beginning to the very end of life there is love and the need for love—in which sex is a component and intercourse one consummation, but not the whole story.

pulses that underlie all behavior, either that sufficiently domesticated to be called normal or standard, or insufficiently domesticated to be termed abnormal, as exemplified in neurotic distress.

We observe that psychoanalysis is not applicable to every case, but rather is essentially usable in the neuroses and neurotic characters, when intelligence and ego strength can constructively assimilate deep insight with corrective change. However, with time, the modifications in psychoanalytic therapy have given us dynamic methods to study and treat nervous disorders over a progressively wider range of afflictions, including even the psychoses. While with more economical procedures carried out by mature, well trained, and well experienced therapists, treatment may be extended to include an ever broadening range of human besetments. It is, in short, a vital and effective therapy that strikes deep into the character structure, enabling the sufferer to rebuild his life and living on a more mature and successful foundation.

Meyer, too, developed a therapy he called distributive analysis and synthesis. Like his theory of personality function, his treatment of personality disorder was more superficial and worked with the conscious personality, presumably dealing with the deeper strivings, but not really mobilizing them in full terms as the Freudian therapist does with the unconscious. Thus these deeper opportunities for therapy remained untouched and allowed the neurotic nucleus to remain entrenched. Too, Meyer's therapy was deprived of the great value of analyzing and working with transference and resistance in the emotional give-and-take of the physician-patient relationship that gives such impetus to analytic therapy. Rather distributive analysis works more in the framework of a warm, sympathetic, and friendly rapport, and usually little, if any emphasis is given to unconscious motivation. Yet this broad, general, and infinitely reasonable approach, extremely methodical in its own right and way, served principally as a workable therapy for the mass of nervous persons. In its recourse to improving the environment of the patient while treating him, it is well adapted to wide usage in the psychoses and mild neuroses. It is to be especially emphasized that Meyer's insistence that each case be treated, not as an example of a particular disorder, but rather as a disorder of that individual person, modified the fatalistic and even nihilistic attitude that had prevailed in regard to the psychoses, particularly the schizophrenias. He demanded integrated medical consideration for the whole man: an inquiry into the conditions under which he became ill, what modifications were needed for his improvement, and the marshalling of opportunities for his therapy. A consideration of such specific factors in each case fostered a refreshing and stimulating attitude for studying the patient as "an experiment of nature", and of finding therapy unique for that person. It was Meyer's shrewd and courageous attack upon descriptive and nosological self-sufficiency that brought a new orientation that changed the course of psychiatric thought.

However, in the more severe chronic neuroses and the so-called character disorders where deep therapy is required, Meyer's therapy is less effective. Further, unless it is carried out in the hands of extremely well trained persons, there is the possibility of bewilderment and confusion, and of losing both consistency and sequence, and it never becomes the moving therapy with dramatic changes encountered when transference is employed and analyzed. Many speak of the Meyerian as an eclectic but it is difficult to consider him a true eclectic functioning with broad assets and free spirit if he has not had the proper training in the use of free association, dream interpretation, and the use of transference. However ,taking into consideration Meyer's generally broad and flexible treatment of nervous disorder, and his great contributions to psychiatry, it would be narrow to quibble on the point of strict eclecticism.

One concedes that there is no all inclusive or perfect therapy in psychiatry, yet in the main there is not another field of medicine

where there are more effective therapies that can be employed for certain disorders where indications warrant and objectives are shaped. There are, for example, the more superficial therapies of counsel and advice; the deeper therapy of distributive analysis and synthesis; and the deep, moving, and reshaping therapy of psychoanalysis. We can make a comparison to surgery in this respect, where there is the more superficial surgery for minor or cosmetic disorders, or a deeper surgery for internal disturbances, or a deep and devastating surgery for growths requiring considerable dissection when they have invaded the person; then, too, we find the more prolonged surgery of a reconstructive nature such as orthopedic and plastic surgery. Similarly we have psychotherapy superficial and deep, short and long, just as we have surgeries superficial and deep, short and long.

In brief, the shaping situation today seems to be one where there is a healthy growth without antagonism between the discoveries and teachings of these two great physicians. Meyer gave us a sound and comprehensive understanding of consciousness with its degrees and variations and laws of operation based on a broad objective approach to the total living person in his milieu. His theories and methods were more readily assimilated into the body of medical tradition than were Freud's, and by softening the general attitude toward psychiatry, he incidentally promoted a less grudging recognition of what psychoanalysis had to offer, for they served as a buffer until the unconscious factors in human behavior could be accepted more readily and with less anxiety. Freud, on the other hand, gave us an understanding of man's unconscious life and a method of research and a therapy profoundly moving and effective, striking at the more subjective personality, with special emphasis on the repressed area that comes to conflictual and repetitive expression. While it is true that his theory of personality function and his research method are less acceptable to the conventional minded, they are nonetheless valid for studying not only man himself, but man's productions as well. In fact the contributions of psychoanalysis to the fields of medicine, psychology, sociology, and anthropology, not to mention myth, literature, and art, are generally recognized and accepted.

It seems clear, then, that the psychotherapy of tomorrow will embody the sound discoveries and teachings of these two great men. One cannot help but be a better psychiatrist by knowing and employing the teachings of Sigmund Freud, or a more competent psychoanalyst by knowing and employing the teachings of Adolf Meyer. In short, the desideratum is a psychotherapy that will synthesize and bring into effective influence the wisdom, teachings, and scientific achievements of both of these masters in psychiatry, and the successful student and therapist of the future must have a knowledge and command of both.

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PSYCHOANALYTICAL METHODS OF STUDY OF PATIENTS*

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NEW ORLEANS

Psychoanalysis is a medical procedure in the special field of psychiatry. While general psychiatry concerns itself largely with care and treatment in the psychoses, psychoanalysis is employed more specifically in the neuroses, and personality and emotional disturbances. Psychoanalysis was an outgrowth of the beginning of the psychological approach in mental illness. Psychoanalysis, in turn, enriched psychiatry by its contributions to the understanding of everyday human mental life and its problems. Psychoanalytic theories and concepts did much to further the development of present day dynamic psychiatry. Psychoanalysis is, simultaneously, a therapeu-

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tic method in the neuroses and a research method in the mental field.

Psychoanalytic theories, concepts, and clinical technics stem from the original work of research-minded Sigmund Freud, a Viennese physician. He began his medical career in 1881, doing research in neurology until financial responsibilities forced him into the clinical field. He had the wish to understand the nervous states, and, studied and used the then known methods of hypnosis and mental catharsis in his cases. He soon abandoned these methods as his further clinical experiences led him to the development of psychoanalysis. From then on, Freud devoted his life to the study and development of psychoanalytic concepts and technics. What he observed in his patients, he also applied to the mental life of healthy persons. Although there have been significant theoretical contributions and minor modifications of technics by other workers in the field, the main body of knowledge, the principles and clinical technics as developed by Freud have stood the test of time in clinical practice, and are the basis of all analytical teaching and practice. The difference in the so-called schools of psychiatry is largely a matter of emphasis.

Psychoanalysis maintains that there is an unconscious as well as a conscious mental life, that very powerful unconscious processes and ideas can produce in the personality all the effects that ordinary ideas do without themselves becoming conscious, and that it studies this unconscious mental life. Psychoanalysis further maintains that the source of these unconscious processes and ideas lies in the deeper instinctive and emotional needs of the individual; that mental phenomena are the result of the interplay of primitive needs and the influence of the environment on the expression and manifestations of these needs; and that the mental life of any individual has been conditioned by the history of the individual. Characteristic of most neurotic patients is their emotional immaturity, as evidenced by their difficulties in personal relationships and inadequacy in handling reality situations. This is a reflection of earlier reaction patterns which may have been retained as such from infancy or early childhood, or regressed to frustrating or inhibiting environmental pressures. Instinctual wishes and fears may falsify reality. Therefore, moral evaluations, expressions of good, evil, moral and immoral productions are regarded as products of the human mind and should be investigated as such. Influences of the environment must be studied in detail as to their practical reality. This is essential in seeking a scientific explanation, and comprehension of mental disturbances, and a rational therapeutic approach to emotional problems and the personality disorders.

Psychoanalysis divides mental life into conscious and unconscious mental activity. Conscious and unconscious mental activity may coexist, along with other properties, or consciousness may be absent as in dreams or hypnosis. No idea or thought is continuously or permanently conscious. Thinking, as we know it, would be impossible if such were the case. Our daily living experiences, recede into the background of our thinking and feeling. Under certain conditions, these can again become conscious, that is, may and can be recalled. Where such living experiences have had traumatic effects leading to serious emotional and personality difficulties, as we see most clearly in the neuroses and psychoses, certain opposing forces inherent in every personality come into play in the interest of maintaining the organization and adequate function of the personality. The problem of the nature of these opposing forces and their mode of operation, led Freud to the doctrine of repressions and resistances, the recognition of infantile sexuality, and the interpreting and making use of dreams as a source of knowledge of the unconscious. The knowledge of these mechanisms made possible the development of appropriate therapeutic technics.

In actual practice, the psychoanalyst follows the generally accepted methods of other types of medical practice in the preliminary investigation of the patient's troubles. The psychoanalyst is interested

in the patient's complaints, his symptoms, and the duration and history of their development. He is interested in the physical aspects of the presenting medical problem. He is particularly interested in the evidences of increased tensions and anxieties, overdetermined reactions to reality situations, and the effects of these on physiological functions, work habits, and social and personal relationships. Sometimes, special psychological tests, such as the intelligence and Rorschach tests are helpful in evaluating the individual. In other words, the physician brings to bear all his medical knowledge in his formulation of the problem and further plans for investigation and treatment.

As to the tools of the trade, the analytical couch, the special arrangement of the office, and positions of the therapist and patient in this setting, all have become quite familiar to the public through the cartoons and articles in daily papers, magazines, movies, and radio. The rationale, for this circumstance, however, needs elaboration. In psychoanalytic therapy we deal with conscious as well as unconscious material, events and problems of today as well as of yesterday and of the past. For this purpose, we frequently employ the technic of free association. The patient lies on the couch, and is instructed to say what comes to his mind without reservation. The analyst may sit behind the patient. These rules are not rigidly followed in all cases. The aim is to avoid distracting influences so as not to interfere with the stream of mental activity. This may include dreams, relating of present or past difficulties, with much that is reminiscent of and has the coloring of infantile and early childhood experiences. This is made possible through what is known as the transference, that is, the character of the patient's feelings toward the analyst, which enables him to portray and transfer earlier reaction patterns and feeling relationships into the analytical situation. These productions in the light of the patient's history and other material from previous interviews are used as a basis for interpreting to the patient the meaning and nature of the psychological phenomena that constitute his symptoms. This serves to bring unconscious conflicts to the conscious level, where they may be dealt with realistically and more objectively. The aim is to bring about the release of old affects, and the giving up of immature attitudes and ways of dealing with life's problems.

In consideration of a patient for psychoanalytic therapy, the age, intelligence, and ability to cooperate are determining factors. In some cases, a preliminary period of psychoanalytically oriented psychotherapy, modified in the direction of conscious material is necessary. This is especially true in acute conditions such as severe anxiety and tension states, which may be prepsychotic. Much depends on the intelligence, training, skill, and resourcefulness of the physician. Other factors, such as the nature, and the severity of the condition, and the kind of fundamental personality structure from the standpoint of integration and organization determine what or how much can be achieved in any given case. In some cases psychoanalysis is not indicated, nor the therapy of choice. It is a long drawn out procedure, and expensive from the standpoint of both time and money. It should be undertaken only after thorough consideration by the patient and the physician, of all that long term therapy involves.

Research in psychoanalysis is by the laborious empirical method. The treatment room has definite limitations as a research laboratory. Current research interests are in the direction of shortening therapy in the neuroses, and developing better understanding of, and therapeutic technics in the psychoses. Progress has been and is slow. This is due not only to the limitations of the research methods as such, but to the difficulty of interesting and training qualified physicians for this purpose. The present demand for psychiatric treatment creates a considerable problem for the psychoanalytic training institutions in the country. The established institutes are only able partially to meet the demand, and new training centers are coming into exist-

ance. This puts the emphasis on training, and the development of training facilities. There is also a constant and increasing acceptance and utilization of psychoanalytical concepts and principles in nonmedical fields, such as social work, education, and industry. There, again, we have a constant and increasing demand for teaching and training in psychoanalytical psychology. While psychoanalytic concepts and principles are applicable to many fields of human endeavor, psychoanalytic therapy is solely the function of the physician trained in this specialty.

In conclusion, the study of patients by the psychoanalytic method is that of investigating and evaluating the expressions and functions of the personality, in the light of the total background of living experiences and influences which have brought about the distortions and inhibitions in the development of the patient and the resultant disorder. By this means and the use of appropriate techniques, the patient may be brought to more normal functioning and a happier state of mind.

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PUBLIC RELATIONS IN ORGANIZED MEDICINE

The code of the true physician through the ages has been to do the best he could and keep his mouth shut. The first part of the formula is as applicable now as ever. The second part has been altered by circumstances as definite as they are vital. When the doctor assisted by his limited tools and drugs was all that medicine offered, then only patient-doctor relations existed. Developments of the past century have introduced many factors that have a bearing on that relationship. Now we have patient relations and we have public relations.

The doctor now is merely the focal point for a small, or possibly a sizable army of persons who work for health. The benefit of these efforts is bought at considerable cost. The physician's part of the total may be,—and usually is,—small. In the emotional adjustment the public makes, the expense is assigned to the doctor. In this, and in various other ways, the physician is not understood as he once was. The problem of proper understanding becomes one of education and adaptation. As we now realize, this is a situation which must be improved by the work of organized medicine, and also,—and more important,—by the individual physician.

Our organizations have come belatedly into this field; the success of their efforts has been a source of great encouragement. They were able to put medicine's situation in regard to the patient, and in relation to socialism, before the public through the usual channels of publicity. Among other things, they were able to inform the public in regard to the necessities and the expense of adequate medical education; the cost of hospital service; the reasons for licensing laws and for our code of ethics. The public can be brought to comprehend that medical ethics were developed and maintained in the best interests of the public, and were not the outgrowth of avarice and jealousy. It is essential that facts pertaining to these situations be presented many times over.

However, as valuable as this form of publicity has proved to be, the conduct of the individual physician is even more vital in providing proper public relations. The doctor must ever keep in mind that what he does or fails to do is reflected upon the entire profession. The public's only intimate contact with any part of the whole field of medicine is with his doctor. The whole is good or bad as it is felt through his doctor. When the contact is not pleasant, the patient reacts in his own defense by wanting to regulate, to sue, or to regiment medicine under a strong (or despotic) central government. One of the most important sources of unpleasant contact in doctor-patient relations is the matter of cost. Around

the question of cost many aspects of controversy and criticism have developed. More intimately in our individual contacts with patients, the commonest source of ill will is the matter of fees. Except under rigid direction, which would actually be socialized medicine, fees are not subject to control, and remain, therefore, a fertile source of conflict. When charges are not agreed upon, and a fee "out of line" is demanded, the patient feels resentment. Presenting this matter to the Courts it has been stated for our and other professions that fees are to be based upon the character of the service, the quality of the service, and the capacity of the patient to pay. In spite of this, we must remember what others have found,—that the customer is always right. As has been found many times over, if a physician would take into consideration the prevailing custom of his community this source of friction would be materially reduced.

Another source of concern is the availability of the physician. The public makes demands upon doctors in this respect that are not expected of any other quarter of the community. The quality of performance in the past has tended to establish this. When help is not within easy reach, dismay comes, and resentment is visited upon all doctors. Recognition of the importance of availability has led to a system for handling emergency calls in various metropolitan areas. These arrangements are costly and difficult to administer, but they promote the kind of good will that will help against socialized medicine.

The particular field of relations with the daily press has received deserved attention in some states, and Colorado has achieved notable success in adjusting the situation to the interests of the editor and the physician. Attempts have not been made to suppress news unfavorable or otherwise. Physicians are made readily available to assist in securing facts, to interpret medical news, and to rationalize conflicts. The code of ethics in regard to press relations such as Colorado has arranged has served a fine purpose in avoiding the ill effects of sensationalism, which would tend to put organized medicine and the physician in an unfavorable light. Arrangements along these lines are recommended as a general policy for organized medicine, and contact of this order with the press is far better in its conception and operation than that which develops influence on the basis of a large advertising account. It is more fitting to the dignity and to the aims of the physician. Every contact the physician makes has a bearing on the public relations of organized medicine.

ORGANIZATION SECTION

The Executive Committee dedicates this section to the members of the Louisiana State Medical Society, feeling that a proper discussion of salient issues will contribute to the understanding and fortification of our Society.

An informed profession should be a wise one.

ANNUAL MEETING

The committees on arrangements for the 1950 meeting to be held in Baton Rouge April 24-26, have been extremely active during the past few months in making plans for the convention this year. Dr. U. S. Hargrove, General Chairman, and all of his sub-chairmen have given a great deal of time and thought to arrangements for all phases of the meeting. Information has been received from the Chairman of the Committee on Hotels, Dr. Edward G. Cailleteau, that the hotels and tourist courts have indicated a desire to cooperate in offering suitable and adequate accommodations for our doctors and a card has been sent to each member for his use in requesting reservation. It is essential that these requests be received by Dr. Cailleteau without further delay as rooms will not be held much longer by the hotels and tourist courts. A sufficient number of rooms are tentatively being held. However, these will have to be released about six weeks prior to

the date of the meeting. Send your request immediately to Dr. Cailleteau, 916 National Bank Building, Baton Rouge.

Dr. William O. Vennard, Chairman of the Golf Committee has made arrangements to hold the golf tournament at the Baton Rouge Country Club. This will take place on April 24, 25 and 26.

Many requests have been received for scientific exhibit space and it is hoped that adequate arrangements can be made to take care of this important phase of the meeting.

The pharmaceutical companies, instrument houses and other businesses have cooperated by buying technical exhibit space and although space will be limited, it is felt that the display will prove most interesting and attractive to the doctors in attendance.

The scientific program is almost completed. Information will be carried in future issues of the Journal concerning the program and copy will be sent to each member two weeks prior to date of the meeting.

Be sure your plans for 1950 include attendance at the Annual Meeting.

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TENURE AND OBLIGATIONS OF MEMBERSHIP

The House of Delegates of the American Medical Association at its meeting in Washington, D. C., December 6 to 8, 1949, adopted amendments to the By-Laws of the American Medical Association whereby Division One, Chapter II, Tenure of Membership, has been changed to read as follows:

Chapter II.—Tenure and Obligations of Membership; Dues:

Section 1.—When the Secretary is officially informed that a member is not in good standing in his component society, he shall remove the name of said member from the membership roll. A member shall hold his membership through the constituent association in the jurisdiction of which he practices. Should he remove his practice to another jurisdiction, he shall apply for membership through the constituent association in the jurisdiction to which he has moved his practice. Unless he has transferred his membership within six months after such change of practice, the Secretary shall remove his name from the roster of members.

Sec. 2.—Annual dues, not to exceed $25.00, may be prescribed for the ensuing calendar year in an amount recommended by the Board of Trustees and approved by the House of Delegates. Each active member shall pay said annual dues to his constituent association for transmittal to the Secretary of the AMA.

An active member who is delinquent in the payment of such dues for one year shall forfeit his active membership in the AMA if he fails to pay the delinquent dues within thirty days after notice of his delinquency has been mailed by the Secretary of the AMA to his last known address.

Any former member who has forfeited his membership because of being delinquent in payment of dues may be reinstated on payment of his indebtedness.

(d) The amended By-Laws provide for the collection of the AMA membership dues by the constituent associations for transmittal to the Secretary of the AMA. The detailed method to be adopted by each constituent association will vary in each state. In general, the method utilized by each state for the collection of its own component and constituent association dues should be followed.

It is planned to provide each member of the AMA a membership card and certificate of membership when his dues are paid.

It will be necessary for the Secretary of the AMA to notify those members who are delinquent in the payment of their dues, and this office will, therefore, require a complete list of all active dues paying members.

No changes have been made in the Constitution and By-Laws of the AMA with respect to Fellowship. Eligibility for Fellowship and annual Fellowship dues of $12.00 remain the same. Under the present By-Laws, a Fellow will pay for the year 1950 total membership and Fellowship dues of $37.00.

CANCER SEMINARS

Two hundred and thirty-one doctors from four of Louisiana's eight districts, attended the Cancer Seminars on January 4, 5 and 6, conducted by teams of doctors from the L. S. U. and Tulane Medical Schools. These meetings were sponsored by the Cancer Committee of the State Medical Society, working cooperatively with the Louisiana Division of the American Cancer Society and the Department of Health in this professional education program for Louisiana.

Reports show that the Seminars in the Third, Fourth, Fifth, Sixth and Seventh District received the commendation of all who were in attendance and that the splendid program of study elicited enthusiastic approval and interest, which will mean even better attendance at the next series of Cancer Seminars scheduled for early March, the exact date to be announced later.

The L. S. U. team, consisting of Dr. W. J. Burdette, Dr. Howard Mahorner, Dr. Louis Raider and Dr. J. H. McCormack, Jr., appeared in Shreveport at Charity Hospital on Thursday, January 5. Seventy-five doctors registered for the sessions held in the afternoon and evening, according to Dr. Charles L. Black, member of the Executive Committee of the Cancer Committee for the Fourth District.

The Fifth District meeting, held in Monroe on Friday, January 6, was attended by 50 doctors who met in the Virginia Hotel Ball Room for afternoon and evening sessions, after a round of wards and consultations at the Charity Hospital (Conway Memorial). Dr. Jack Rawls, of Bastrop, was chairman of arrangements.

The Tulane team, made up of Dr. Paul DeKamp, Dr. Charles Dunlap, Dr. Albert Segaloff, Dr. Joseph Schlosser and Dr. John Hunt, conducted a seminar at Baton Rouge on January 4, with 30 doctors present.

Dr. T. Jeff McHugh reports that in Lafayette on January 5, where Dr. L. O. Clark had set up arrangements at Lafayette Charity Hospital, there were 28 doctors present. At Lake Charles on January 6, in St. Patrick's Hospital, there were 48 doctors present, led by Dr. Walter O. Moss, Cancer Committee chairman for the district.

Members of the Medical Auxiliaries in each of the districts made a definite contribution by their handling of registration for these conferences.

LOUISIANA STATE MEDICAL SOCIETY NEWS

CALENDAR

PARISH AND DISTRICT MEDICAL SOCIETY MEETINGS

Society	Date	Place
East Baton Rouge	Second Wednesday of every month	Baton Rouge
Morehouse	Second Tuesday of every month	Bastrop
Natchitoches	Second Tuesday of every month	
Orleans	Second Monday of every month	New Orleans
Ouachita	First Thursday of every month	Monroe
Rapides	First Monday of every month	Alexandria
Sabine	First Wednesday of every month	
Second District	Third Thursday of every month	
Shreveport	First Tuesday of every month	Shreveport
Vernon	First Thursday of every month	

FIRST INTERNATIONAL CONGRESS ON DISEASES OF THE CHEST

The First International Congress on Diseases of the Chest will be held at the Carlo Forlanini Institute, Rome, Italy, September 17-20, 1950, under the auspices of the Council on International Affairs of the American College of Chest Physicians and the Carlo Forlanini Institute, with the patronage of the High Commissioner of Hygiene and Health, Italy, in collaboration with the National Institute of Health and the Italian Federation Against Tuberculosis.

Physicians who are interested in attending the Congress should communicate at once with Dr. Chevalier L. Jackson, Chairman of the Council on International Affairs, American College of Chest Physicans, 500 North Dearborn Street, Chicago 10, Illinois, U. S. A., or with Professor A. Omodei Zorini, Carlo Forlanini Institute, Rome, Italy.

LETTER TO THE EDITOR

August 30, 1949.

Dear Sir:

Would you publish the following request?

The study of twins is of great value in providing information concerning the respective importance of hereditary predisposition and environmental influences in disease in man. The results of the use of this method have shown a hereditary predisposition to tuberculosis, diabetes, and tumor formation, and a high, medium or low intelligence quotient.

There is some *a priori* evidence showing an hereditary predisposition for peptic ulcer. Only six cases of the occurrence of peptic ulcer in the one or both of mono- or dizygous twins have been reported in the readily accessible literature. Since twins are born in 1 of 86 births and identical twins in 1 of 344 births and the general incidence of ulcer is from 5 to 10 per cent there should be plenty of material available.

Physicians are asked to cooperate in assembling such material by sending me cases in which (1) or both twins develop peptic ulcer, (2) the site of the ulcer, (3) the age of onset of ulcer, (4) the type of twins (monovular or diovular), (5) the sex of the twins, (6) the date of birth of the twins, and (7) the number and age of the brothers and sisters and the absence or presence of ulcer in each.

A. C. Ivy, M. D.,
Department of Clinical Science,
University of Illinois,
1853 West Polk Street,
Chicago 12, Illinois.

CONTINUATION COURSE IN OPHTHALMOLOGY

A Continuation Course in Ophthalmology will be held March 13, through noon March 18, 1950, given by the Department of Ophthalmology of Tulane University and the Division of Graduate Medicine. Guest lecturers will be: Dr. Daniel B. Kirby, New York, New York, Professor Emeritus of Ophthalmology, New York University Medical School; Dr. Frank B. Walsh, Baltimore, Maryland, Associate Professor of Ophthalmology, John Hopkins University and Wilmer Eye Institute; Dr. Robert J. Master, Indianapolis, Indiana, Professor of Ophthalmology, University of Indiana, Indianapolis, Indiana Medical School; Dr. Harold Falls, Ann Arbor, Michigan, Associate Professor of Ophthalmology, University of Michigan Medical School; and Dr. Charles Sheard, Distinguished Lecturer in Ophthalmology, Tulane University of Louisiana, Professor Emeritus of Experimental Biophysics, Graduate School, University of Minnesota (Mayo Clinic). Additional lectures will be given by resident faculty members of the Department of Ophthalmology, Tulane University.

LOUISIANA SOCIETY OF ANESTHESIOLOGISTS

On November 25, 1949, the Louisiana Society of Anesthesiologists met at Charity Hospital in New Orleans for their annual meeting. An extremely interesting and informative talk was given by Dr. W. A. Sodeman of the Department of Medicine of Tulane University, on the subject of "The Cardiac Patient as a Surgical Risk" and there followed a period of discussion of the same subject. Following this, the Society held a business meeting at which the following officers were elected:

President, Dr. John Adriani of New Orleans; Vice-President, Dr. John W. McGehee of Baton Rouge; Secretary-Treasurer, Dr. A. J. Ochsner of New Orleans; Delegate, Dr. George B. Grant of New Orleans; Alternate Delegate, Dr. Stanley Mintz of Monroe, La.

REVISED GETTYSBURG ADDRESS

One score and sixteen years ago our fathers brought forth upon this nation a new tax, conceived in desperation and dedicated to the proposition that all men are fair game.

Now we are engaged in a great mass of calculations, testing whether that taxpayer or any other taxpayer so confused and so impoverished can long endure. We are met on Form 1040. We have come to dedicate a large portion of our income to a final resting place with those men who here spent their lives that they may spend our money.

It is altogether anguish and torture that we should do this. But in the legal sense we cannot evade—we cannot cheat—we cannot underestimate this tax. The collectors, clever and sly, who computed here, have gone far beyond our power to add and subtract.

Our creditors will little note nor long remember what we pay here, but the Bureau of Internal Revenue can never forget what we report here. It is for us, the taxpayers, rather to be devoted here to the tax return which the government has thus far so nobly spent.

It is rather for us to be dedicated to the great task remaining before us, that from these vanishing dollars we take increased devotion to the few remaining; that we here highly resolve that next year will not find us in a higher income tax bracket.

That this taxpayer, underpaid, shall figure out more deductions; and that taxation of the people, by the Congress, for the government, shall not cause our solvency to perish.

Reprint from "The Carpenter"

FELLOWSHIP IN PEDIATRICS

A recent intensive study of child health services has documented widespread feeling that there was greater need for better training programs in pediatrics for general practitioners than there was for more pediatricans. In hopes of helping to meet this need, the Division of Graduate Medicine and the Department of Pediatrics at Tulane Medical School in New Orleans have collaborated in establishing plans for continuous training fellowships in Pediatrics designed particularly to meet the needs for general practitioners from rural communities who have a major interest in problems peculiar to infants and children.

Applicants should be less than forty-five years of age, should have been out of medical school for less than ten years, and should have practiced and have planned to continue practicing in communities having less than ten thousand population. The course of study will continue over a period of not less than three months and will encompass practical clinical experience in all phases of infant and child health, active participation in the undergraduate and postgraduate teaching programs of the Department of Pediatrics, and opportunity for pursuit of individual clinical or research interests on a part-time basis. Appointments will be made on the basis of merit and need and the course of study will be highly individualized. Application can be made by any qualified individual, either directly or indirectly or through a sponsoring agency, such as county medical societies, maternal and child health divisions of state health departments, sections on General Practice or Rural Health of the American Medical Association, interested Foundations or civic groups etc.

Responsiblity for arranging and paying for registration, tuition, and living expenses during the period of fellowship rests with the individual applicant or his sponsoring agency. For further information, interested individuals or agencies should correspond with the Director of Graduate Medicine, Tulane Medical School, 1430 Tulane Avenue, New Orleans, Louisiana.

EIGHTEENTH ANNUAL MEETING— SOUTHEASTERN SURGICAL CONGRESS

The eighteenth annual meeting of the Southeastern Surgical Congress will be held at the Shoreham Hotel in Washington, D. C., on March 6, 7, 8 and 9, 1950. A comprehensive and interesting program has been arranged. For further details, interested physicans may communicate with Dr. B. T. Beasley, Secretary of the Southeastern Surgical Congress, 701 Hurt Building, Atlanta 3, Georgia. The program is as follows:

Guest Speakers

Dr. Otto C. Brantigan, Baltimore, Md.
Extrapleural Plombage Using Lucite Balls in the Treatment of Pulmonry Tuberculosis

Dr. Enoch Callaway, LaGrange, Ga.
Carcinoma of the Cervix

Dr. William C. Cantey, Columbia, S. C.
Colostomy and Ileostomy

Dr. Bayard Carter, Durham, N. C.
The Treatment of Squamous Celled Carcinoma of the Vulva

Dr. Richard Cattell, Boston, Mass.
Management of Hyperthyroidsm

Dr. Harry Lee Claud, Washington, D. C.
Plastic Surgery of Interest to the General Surgeon

Dr. Conrad G. Collins, New Orleans, La.
Benign Lesions of the Cervix

Dr. Donald S. Daniel, Richmond, Va.
Endometriosis

Dr. Edgar W. Davis, Washington, D. C.
Clinical Signifcance of Intrapulmonary Neoplasms

Dr. Gilbert F. Douglas, Birmingham, Ala.
Uterine Bleeding, The Gynecologists Bete Noire

Dr. Frederick H. Falls, Chicago, Ill.
The Management of Ectopic Pregnancy

Dr. Albert E. Goldstein, Baltimore, Md.
Familial Urological Diseases

Dr. D. P. Hall, Louisville, Ky.
The Spleen, A Few Surgical Aspects

Dr. William F. Harper, Selma, Ala.
Nephropexy, Its Indications, Operative Technique and End Results

Dr. Archibald C. Hewes, Gulfport, Miss.
Chest Conditions which Come Under Realm of General Surgery

Dr. Hal E. Houston, Murray, Ky.
The Meckel's Diverticulum

Dr. Harry H. Kerr, Washington, D. C.
Haemangio-Sarcoma of the Stomach

Dr. Lucien A. LeDoux, New Orleans, La.
C. Jeff Miller: His Teachings in the Management of Uterine Fibroids.

Dr. Howard Mahorner, New Orleans, La.
Explorations of the Common Bile Duct

Dr. J. D. Martin, Jr., Atlanta, Ga.
The Complications of Splenectomies

Dr. Henry W. Mayo, Jr., Charleston, S. C.
Present Status of the Surgical Therapy of Gastric and Duodenal Ulcer

Dr. Raymond W. McNealy, Chicago, Ill.
The Management of Carotid Body Tumors

Dr. William F. Meacham, Nashville, Tenn.
Surgical Treatment of Intra-Cranial Aneurysms

Dr. A. T. Miller, Jr., Chapel Hill, N. C.
To be announced

Dr. Charles B. Olim, Memphis, Tenn.
Experiences in the Surgical Treatment of Congenital Pulmonary Stenosis.

Dr. Louis M. Orr, Orlando, Fla.
Carcinoma of the Urinary Bladder

Dr. Neal Owens, New Orleans, La.
Some Further Considerations in the Treatment

of Surface Cancer

Dr. George T. Pack, New York, N. Y.
Recent Advances in the Treatment of Cancers of the Esophagus and Stomach

Dr. Willard H. Parsons, Vicksburg, Miss.
Surgical Problems in the Aged Negro

Dr. J. C. Patterson, Cuthbert, Ga.
Gastrocolis Fistulae

Dr. William F. Rienhoff, Jr., Baltimore, Md.
Hyperparathyroidism Diagnosis and Surgical Treatment

Dr. Charles Rountree, Oklahoma City, Okla.
The Use of Bone Bank Bone in Bone Surgery

Dr. Joseph S. Stewart, Miami, Fla.
Gastric Resections and Vagotomies, Morbidity and Mortality in a General Hospital, not Associated with a Teaching Center

Dr. Gabriel Tucker, Philadelphia, Pa.
Diagnosis and Treatment of Carcinoma of the Larynx

Dr. William L. Valk, Kansas City, Kansas
Segmental Renal Functions Studies in Surgical Patients

Dr. H. H. Ware, Jr.
Ectopic Pregnancy

Dr. Robert J. Wilkinson, Huntington, W. Va.
The Effect of Medical Education Upon Our Economic Future

Dr. Charles Stanley White, Washington, D. C.
Sigmoido-vesical Fistula: Diagnosis and Treatment

Dr. William Crawford White, New York, N. Y.
Radical Operations of Cancer of the Breast

Dr. Hays R. Yandell, Tulsa, Okla.
The Treatment of Extensive Burns

Dr. George H. Yeager, Baltimore, Md.
Treatment of Mixed Peritonitis with Aureomycin

WOMAN'S AUXILIARY TO THE LOUISIANA STATE MEDICAL SOCIETY

WOMAN'S AUXILIARY, LOUISIANA STATE MEDICAL SOCIETY

In 1949, for the first time, the Women's Auxiliary to the Orleans Parish Medical Society honored two of its members for their long and signal service to the group by conferring honorary membership on them for two years. Again this year, two more outstanding women have been elected to this honor for two years, namely, Mrs. S. Chaille Jamison and Mrs. John H. Musser. Mrs. Jamison served the Auxiliary as its president in 1934-35. Mrs. Musser was president of the Louisiana State Auxiliary in 1933-34. At the February meeting of the Orleans Parish Auxiliary, these members were presented certificates of honorary membership by the president, Mrs. Boni De Laureal, in appropriate ceremonies. Honor guests also at this meeting were the members of the Executive Board of the Auxiliary to the New Orleans Dental Association.

The Periodic Health Chairman has mailed cards to the entire membership urging an annual medical check-up.

Plans are being formulated by the Orleans Parish Auxiliary for the entertainment of the wives of doctors attending the New Orleans Graduate Medical assembly. The assembly will be held in New Orleans March 6-9.

An essay contest is being sponsored by the Auxiliary in the Orleans Parish schools—both private, parochial and public. The topic is "Why the Private Practice of Medicine Furnishes This Country With With the Finest Medical Care." The prizes total $100. The judges consist of a committee of prominent medical and lay people, men and women. Mrs. Edwin R. Guidry is chairman of the essay contest.

The Woman's Auxiliary to Rapides Parish Medical Society is also sponsoring an essay contest, the purpose of which is to make "Today's Health" (the new name of Hygeia) better known to laymen. The title of the essay is "Improving Health Through Today's Health." The contest will be held the week of March 26, and will be open to high school students of both public and parochial, white and colored, schools of Alexandria. Prizes of $30 for the white students and $30 for the colored will be given. Mrs. Noel Simmonds is chairman of the essay contest.

Subscriptions to Hygeia have been given to the colored high schools of Alexandria. The white schools have been subscribing for some time.

At the February meeting, the Rapides Parish Auxiliary elected the following officers for the year 1950-51: President, Mrs. H. H. Hardy, Jr.; President-Elect, Mrs. Henry Gahagan; Vice-President, Mrs. Noel Simmonds; Recording Secretary, Mrs. C. E. Hensel; Corresponding Secretary, Mrs. R. B. Wallace, Jr.; Treasurer, Mrs. R. J. Freedman; Historian, Mrs. Clarence Pierson; Parliamentarian, Mrs. Allen C. Winters.

Dr. Alice Williams, of Church Point, was guest speaker at the January meeting of the Woman's Auxiliary to the Lafayette Medical Society. Dr. Williams, who spoke on "Public Relations," gave many suggestions from a physician's viewpoint, as to the ways the Medical Auxiliary may be of service to the physician and to the community.

Dr. Williams also stressed that it was important for the Auxiliary to support such organizations as the American Cancer and Heart Associations.

The Woman's Auxiliary to the East Baton Rouge Parish Medical Society celebrated its 10th anniversary at the January meeting. Honored guests were the nine past presidents and Mrs. Roy Carl Young, through whose efforts the Auxiliary was founded. Mrs. Young is a past-president of the Louisiana State Auxiliary.

At the January meeting of the Woman's Auxiliary to the Tangipahoa Parish Medical Society, a report was made on the gifts of hard candy which had been given to the children's ward of the Florida Parishes hospital. Miss Velmarae Dunn gave an interesting book review on "The Siamese Doctor" by Jacques M. May.

A book review was also given on the programs of the Woman's Auxiliary to the St. Tammany Parish Medical Society and the Woman's Auxiliary to the Jefferson Davis Parish Medical Society at their January meetings.

Mrs. P. A. Donaldson, Councilor of the Second District of the State Auxiliary has been making plans for talks to be given by physicians on Nursing, Periodic Health, and Polio.

Mrs. Donaldson entertained members of the First and Second Districts at a tea and sherry party at home in Reserve in February.

The Woman's Auxiliary to the Ouachita Parish Medical Society entertained the Louisiana Nurses Association at a tea in November at the Lotus Club of Monroe.

The Publicity Committee of the Woman's Auxiliary to the Shreveport Medical Society has formulated an admirable policy in regard to newspaper publicity. The committee, of which Mrs. Harold J. Quinn is the chairman, thinks that the more serious side of the Auxiliary should be presented to the public. Emphasis has been placed on the various projects of the social hour following the programs. All publicity is written with the aim of projecting the Auxiliary as a serious Women's organization rather than a social club of doctors' wives.

An active and interesting Committee of the Woman's Auxiliary to the Shreveport Medical Society is the Speakers' Bureau. The latter was organized in March, 1949, by Mrs. J. T. Heard, then president of the Auxiliary. The purpose of the Speakers' Bureau was to bring to the club women of Shreveport facts pertaining to socialized medicine. Mrs. Charles E. Rew was appointed chairman of the committee which consisted of Mesdames Eugene Wenk, Ben Cobb, Irvine Rice, B. P. Smith and O. C. Rigby. The speakers who served the bureau were Dr. Alice Holubeck, Mrs. A. A. Herold and Mrs. J. Bender.

The committee contacted all women's clubs in Shreveport — literary, civic, political, patriotic, sororities, study clubs, music and religious—to arrange for a member of the Speakers' Bureau to address the club on socialized medicine. Twenty-nine clubs were served, and the audiences were most appreciative. They expressed the feeling that their viewpoint had been broadened and that the whole subject was better understood as a result of the information given them.

The Parent-Teacher Associations were not able to arrange for speakers because their programs had already been planned for the remainder of the school term. In September, the committee contacted 21 presidents of PTA units to arrange for speakers during the 1949-50 year. To date eight PTA units have heard an address by a member of the speakers' bureau and before the end of the school year, all units will have been visited.

MRS. DANIEL M. KINGSLEY
Chairman Press and Publicity.

BOOK REVIEWS

Neoplasms of Bone and Related Conditions: Their etiology, pathogenesis, diagnosis, and treatment: By Bradley L. Coley, M. D., New York, Paul B. Hoeber, Inc., 1949. Pp. 765 illus. tables. Price, $17.50.

This timely book is one of the greatest contributions to the relatively neglected field of oncology. The material is presented with primary emphasis on the clinical aspects of neoplastic diseases of bone stressing differential diagnosis and measures necessary for the establishment of correct diagnosis; the various methods and technics of therapy, plus a thorough evaluation of the results of the treatment. A number of non-neoplastic diseases of bone have been included in the discussion of differential diagnosis of bone tumors which increases the value of the clinical evaluation of neoplastic diseases immeasurably.

It is quite fitting that the author, stimulated and proctored by his father, a pioneer in the field of oncology, and with years of vast clinical experience at one of the largest centers devoted to the diagnosis and treatment of neoplasia, should attempt such a monumental task of compiling the vast amount of material contained in this book. It will take its rightful place as the authoritative text on bone neoplasia and should be included in the library of not only oncologists, surgeons, and

diagnosticians, but should be available to every practitioner of medicine as a reference and aid in the diagnosis of neoplastic diseases of bone.

JACK WICKSTROM, M. D.

Essentials of Gynecologic Endocrinology: By Gardner M. Riley, Ph. D. Ann Arbor, Mich., Caduceus Press, 1948. Pp. 205. Price, $3.00.

This presentation of the fundamentals of reproductive physiology, the endocrine aspects of gynecological dysfunction or clinical usage and details of useful diagnostic procedure is based in large part upon lectures and discussions prepared for the Gynecology Endocrine Conferences of the University of Michigan Medical School.

In so many of the texts on endocrinology, one becomes immediately lost in the maze of inconclusive animal experimentation. Riley has chosen, wherever possible, to present the endocrine facts as they obtain in the human.

Chapters on endocrinology of the male, hormones and cancer, and a list of endocrine preparations add to the value of this booklet.

EUGENE H. COUNTISS, M. D.

The Eye and Its Disease: By Conrad Berens M. D., F. A. C. S. Philadelphia, Wm. B. Saunders, Co., 1949. Pp. 1092, illus. Price, $16.00.

The second edition bridges a thirteen year gap in American ophthalmic literature, during which time no textbook of intermediate size has been published. Advances in ophthalmology as recent as one year have been included in the text. Ninety-two authors, approximately 10 per cent of whom are foreign, have each contributed to that portion of the book dealing with the fields in which they are most noted. The large number of contributing authors of necessity reduces the continuity and cohesiveness found in texts written by one person, although this does not detract from the value of the book. The documentation of each chapter has largely been left to the discretion of the contributing authors, and varies rather widely.

The subject matter is divided into 14 sections and 76 chapters, many of which might well have been combined. Brevity of the table of contents has been compensated for by the addition of an unusually extensive alphabetic index. Excellent black and white photographs and sketches are profusely distributed throughout the book. The new double column type method of setting has been utilized to facilitate more rapid reading. Particularly noteworthy are the chapters dealing with orthoptic training, physiology of the eye, disease of the conjunctiva, and general and local therapy. Organized orthoptic training is a relatively new phase of ophthalmology and has not been emphasized in the older text books. The importance of anomolous retinal correspondence in the treatment of strabismus is recognized. In the chapter on physiology, Cogan's excellent work on the pathogenesis of corneal edema and aqueous formation is described in detail. In the section on disease of the conjunctiva, Thygeson emphasizes the necessity of bacteriologic studies in making accurate, clinical diagnoses. Viral and allergic diseases are elevated to their newly recognized positions of importance. The uses of newer drugs and methods are presented with clarity. Among these are the antibiotics, wetting agents, lubricants used to compensate for deficiency in lacrimal secretion, and physiotherapeutic agents including x-ray and radium. No mention is made, however, of radium G (Beta irradiation) which has recently been popularized largely by Ilig.

Although this volume may not supplant more extensive foreign publications, it probably will be used predominantly as a textbook especially for basic students. This edition should be in every ophthalmic library.

CHAS. A. BAHN, M. D.
GUS C. BAHN, M. D.

Clinical Case-Taking Guides for the Study of Patients: By George R. Herrmann, M. D., Ph. D. 4th ed. St. Louis, C. V. Mosby Co., 1949. Pp. 240, illus. Price, $3.50.

To quote from the preface, this book is "a guide for the study of patients, a semiology of disease processes, a treatise on the art and science of securing a meaningful story of the patient's symptoms and a systematic examination for the signs of disease."

This well known book is now in its fourth edition. A method of interviewing patients, in order to establish what sort of human being each one is, has been added, in the general outline, for all types of cases. The significance of personality functions as motivating factors in psychosomatic disorders has been pointed out. Sections on pediatric practice and surgical case study have been added.

This book shows how to establish scientific methods and systematic mental habits in taking complete and careful histories.

I. L. ROBBINS, M. D.

Business Side of Medical Practice: By Theodore Wiprud. 2d ed. Philadelphia, W. B. Saunders Co. Pp. 232 illus. Price, $3.50.

The author of this little volume is the Executive Director of the Medical Society of the District of Columbia. Chapters of especial interest are those

on Office Management, Financial records, Case records and filing, Handling of Patients' Accounts, Doctor in Court, Investments and Insurance. Suggestions included are practical and time concerning matters on which many physicians have little information. Young physicians in particular, would find this volume most useful and informative.

MARY LOUISE MARSHALL.

Fundamentals of Otolaryngology: By Lawrence R. Boies, M. D. Philadelphia, W. B. Saunders Co., 1949. Pp 443, illus. Price, $6.50.

This textbook of ear, nose and throat diseases is written by nine authors and is not only designed to meet the needs of the medical student, but also to provide fundamental information to the physician who is not an otolaryngologist. Nevertheless, it would be an excellent review for any physician interested in this subject.

The book is divided into three parts; ear, nose and throat and contains twenty-two chapters. The last chapter is devoted to prescriptions and therapeutic procedures; themotherapeutic, antibiotic and other recent drugs, and is of most practical value to the student and the physician in the management of otolaryngologic problems.

The subject matter represents the opinion of today that has a factual basis and no attempt is made to describe in detail diseases that require a high degree of special training to recognize; nor to outline minutely such surgical procedures which otherwise concern the specially trained specialist and rightly so, since the book is obviously not meant for the expert otolaryngologist.

Each one of the three sections is preceded by a brief surgical anatomic review and offers a concise but comprehensive discussion of the causation, diagnosis, pathology, treatment and complications of the common diseases affecting the ear, nose and throat. More space is devoted to important subjects and less to rare or less important subjects. The book is rather conclusive and many of the recent advances in hearing tests and other functional tests, hearing aids, the esophageal voice after laryngectomy, speech training, and fenestration operation etc., are included.

The references at the end of each chapter are offered as a guide to the reader whose interest carries him to greater inquiry and they will be found to be adequate.

W. A. WAGNER, M. D.

Urological Aspects of Spinal Cord Injuries: By George C. Prather, M. D. Springfield, Ill., Chas. C. Thomas, 1949. Pp. 146. Price, $3.75.

This monograph includes the modern concepts of normal bladder physiology, the changes in the bladder, sexual organs and upper urinary tract after spinal cord injury and the various types of treatment with their results after injury and during the period of recovery. A chapter is devoted to military policy and one to summarizing a suggested program for treatment.

The extensive studies and experience of Dr. Prather enables him to handle the subject in a masterly fashion. In addition, he describes the treatment used by others in the past and compares their results with those of modern methods.

The handling of impaired bladder physiology is thoroughly covered. The author does not believe that resection of the bladder neck is indicated as often as do Thompson, Emmett, and Bumpus. He also stresses the use of cystometrograms.

The treatment of complications in the kidney and lower urinary tract is discussed.

The illustrations are good and adequate, the material is well organized, the style is clear, concise and flowing and the bibliography is extensive.

This volume will be of great value to urologists, neurosurgeons and all who are interested in the handling of a poorly understood and sadly neglected subject.

JOHN G. MENVILLE, M. D.

PUBLICATIONS RECEIVED

Lear Publishers, New York, N. Y.: The Salt-Free Diet Cook Book by Emil G. Conason, M. D., and Ella Metz, Dietitian.

W. B. Saunders Company, Philadelphia: Diseases of the Foot by Emil D. W. Hauser, M. S., M. D. (Second Edition): Textbook of Pediatrics by Waldo E. Nelson, M. D. (Fifth Edition).

The Williams & Wilkins Company, Baltimore, Md.: Principles & Practice of Plastic Surgery by Arthur Joseph Barsky, M. D., D. D. S.

Paul B. Hoeber, Inc., New York: Quinidine in Disorders of the Heart by Harry Gold, M. D.; Brucellosis (Undulent Fever) by Harold J. Harris, M. D. (Second Edition).

Charles C. Thomas, Publisher, Springfield, Illinois: Practical Neurological Diagnosis by R. Glen Spurling, M. D. (Fourth Edition).